Atari ST

The Complete Manual

Classic games, hardware, developers

Atari ST
The Complete Manual
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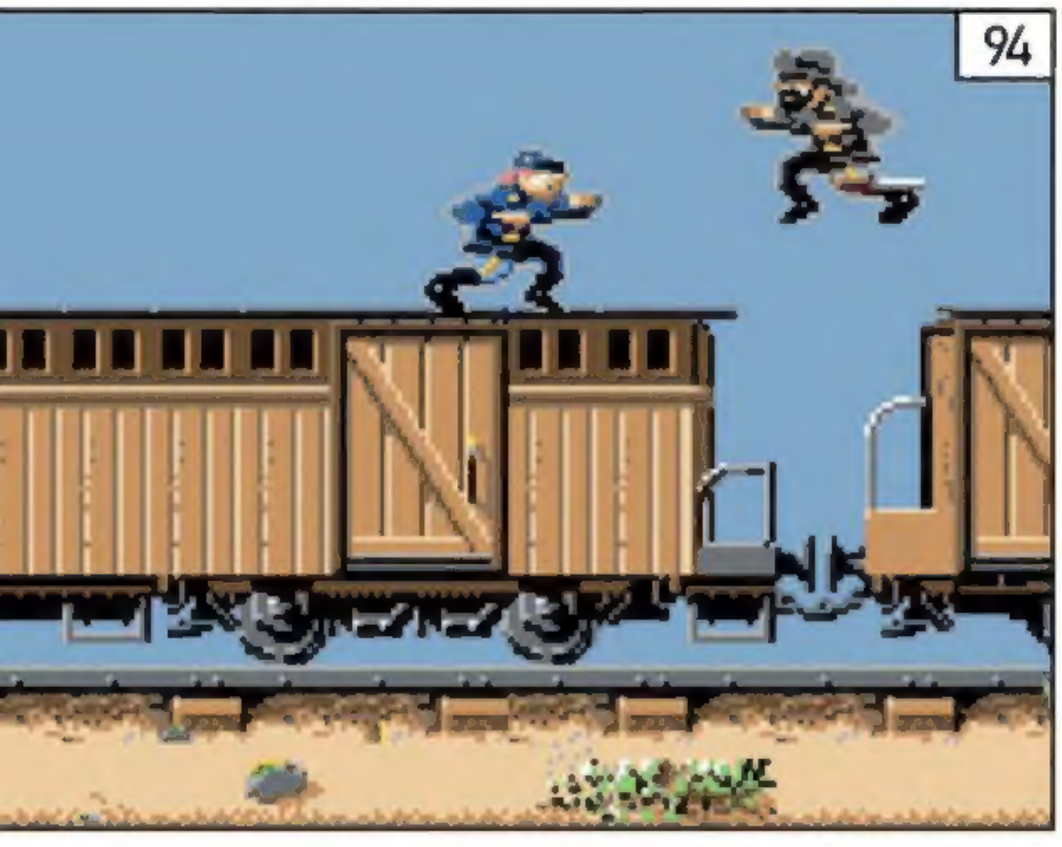

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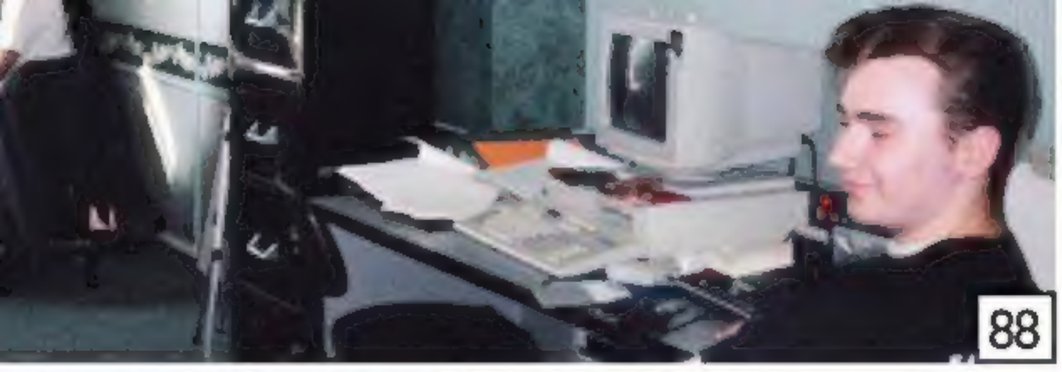

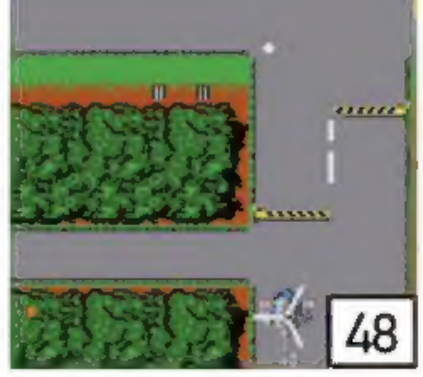

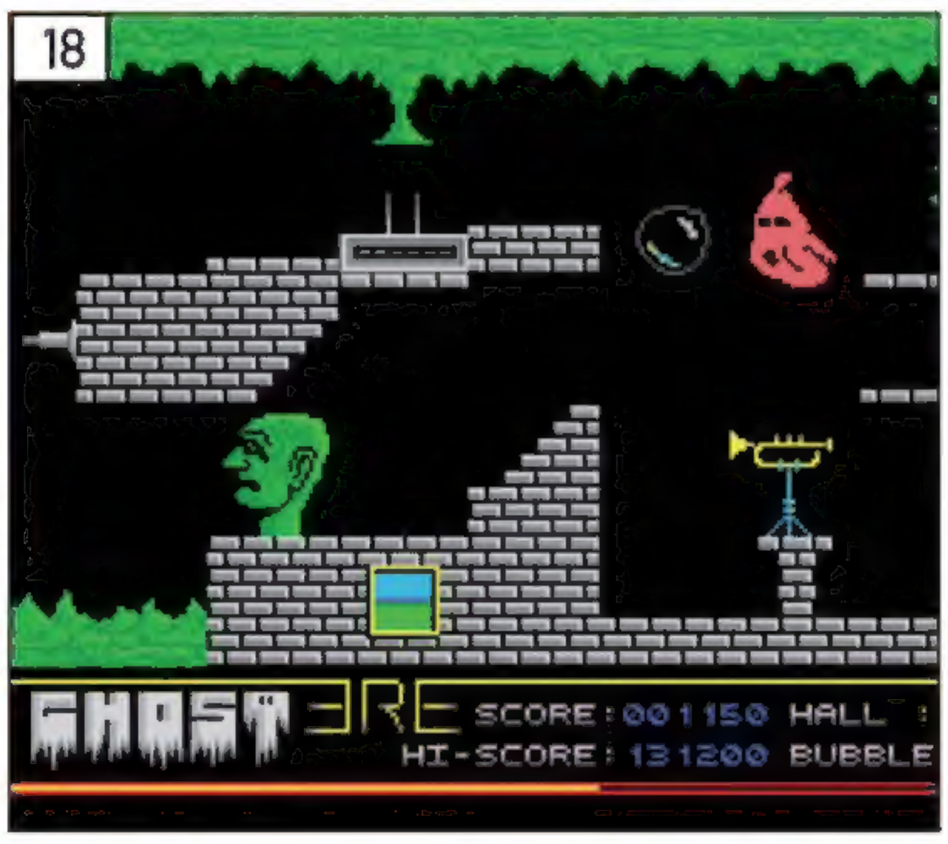

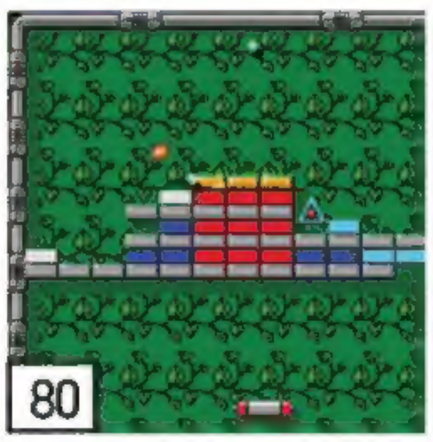

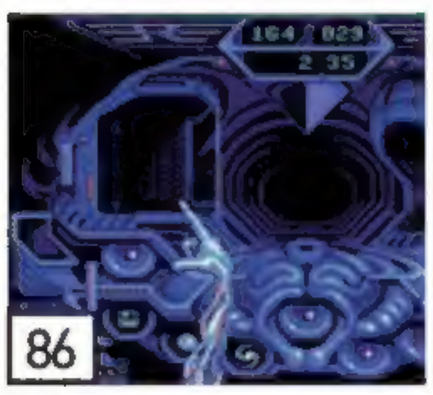

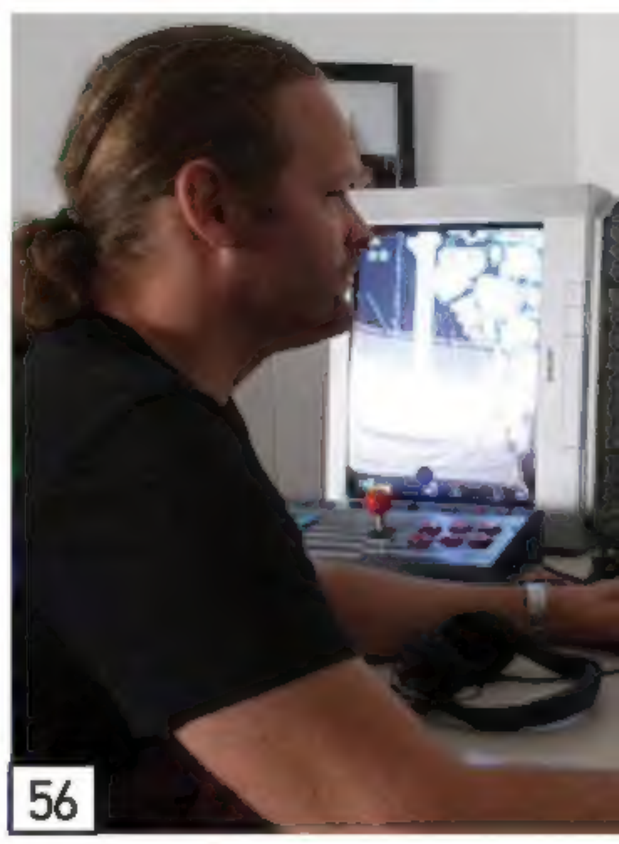

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ATARI ST

IT WAS THE MACHINE THAT SINGLE-HANDEDLY REVIVED THE FORTUNES OF AN INDUSTRY VETERAN. DAMIEN MCFERRAN SPEAKS TO THE MAN RESPONSIBLE FOR MASTERMINDING THE GREATEST COMEBACK SINCE LAZARUS

Following the videogame crash of the early-Eighties, Atari was in horrifying shape. The company's failure to successfully build on the triumph of its popular 2600 console (a machine languishing in obsolescence by this point), coupled with a generally poor quality of software available had triggered a catastrophic meltdown that very nearly destroyed the entire videogame industry. After the dust had settled, Atari's parent corporation Time Warner had incurred a cataclysmic $500 million loss and was predictably keen to offload its flagging games division. What occurred next has gone down in videogame folklore as one of the most startling turnarounds in the history of the medium.

Trading Places

Ironically, the man behind the product that would resurrect the ailing Atari brand had previously been instrumental in sullying the fortunes of the company. Shiraz Shivji worked at rival Commodore during the early-Eighties and helped build the C64 – the home computer that stole away vital market share from Atari's 400 and 800 range, as well as its 2600 console. "I became interested in electronics from my early childhood in Tanzania and my education in the UK," says Shiraz, when asked about how he became entangled in the fabric of Atari's history. "I attended the University of Southampton and obtained a First-Class Honours degree and then moved to Stanford University in the US to pursue a PhD in electronics. I was granted a master's and passed the qualifying exam but left before obtaining my degree as I was running out of funds. I started working in Silicon Valley and obtained experience in hardware and software." By 1984 Shiraz had risen to the role of director of engineering at Commodore and it was at this point that fate intervened.

Although Commodore was undoubtedly causing Atari some serious headaches, things weren't exactly harmonious in the boardroom. "Jack Tramiel was president and CEO of Commodore and Irving Gould was the chairman," explains Shiraz. "Irving was the largest shareholder and Jack was the second largest. In January 1984 there was a showdown between the two of them over the role of Jack's sons at Commodore." Polish-born Tramiel had founded the company in the Fifties after enduring a particularly difficult early life (he was interned in Auschwitz concentration camp for five years during World War II), so his insistence on 'keeping it in the family' is understandable. However, Irving refused to budge and this forced Tramiel's hand. He called a board meeting and tendered his resignation. "I was tremendously disappointed and shocked at this decision," remembers Shiraz.

However, it wasn't long before the two men were reunited. "I soon met with Jack and discussed the possibility of joining him if he was to start a personal computer company," recalls Shiraz. "There were a number of senior execs at Commodore with experience in finance, manufacturing, design, engineering, marketing and sales that felt the same way, so I told Jack he could count on a core team to start a company. At this time Warner Communications was thinking of selling or disposing of Atari as it was losing a lot of money. Jack made an offer for the company by injecting $30 million – $25m from himself and $5m from associates, such as myself. Eventually the deal was struck and that is how I came to be the vice president of advanced development at Atari."

Rising To The Challenge

Having switched sides in dramatic fashion, Tramiel had a new company to command in the shape of Atari Incorporated. He now needed a product that would get the firm back on its feet. Thankfully Shiraz and his team already had ideas forming. "The core team of engineers and developers were thinking of the next personal computer," Shiraz says. "The work on the ST didn't really start until Atari was actually purchased, but the main ideas of using a 32-bit processor as well as support for music and graphics were already important for us."

Shiraz duly started work on the new project codenamed 'Rock Bottom Price', or 'RBP' for short – an indication of Tramiel's desire to produce a cheap yet powerful home computer. "We moved everyone into the Atari facilities on Borregas Avenue in Sunnyvale in July 1984," says Shiraz, who had to dig into his own pockets to ensure development went smoothly. "I paid for airline tickets and hotel bills for my hardware team using my own personal credit cards and was not paid until much later. I think the real development began in August; we didn't usually get home until 11pm some nights, and sometimes it was well after midnight."

This punishing schedule was made even more demanding because Shiraz knew exactly what would happen if he failed to deliver the goods on time. "If we did not come through we would have had to close shop," he states, matter-of-factly. "You can imagine I really felt the very heavy burden of responsibility. We had no choice but to deliver a product that was superior in terms of performance and price." Amazingly, this intense pressure seemed to bring out the best in the team. "I felt very confident and comfortable that I and the team were up to the task," states Shiraz. "After all, I had a core hardware team of four engineers from Commodore that had worked for me in the past so I knew what they could do. We integrated with people from Atari and had a very small but efficient team that worked very hard to get the hardware done in record time. Somehow, although there was much pressure on us, I did not have any sleepless nights. This is because of the trust I had in the team."

The engineers at Atari originally envisaged the machine as a 'true' 32-bit computer, but eventually compromised and settled for a 32-bit

INSTANT EXPERT

Recording artists that have used the ST include Fatboy Slim, Mike Oldfield, UK one-hit wonder White Town and French knob-twiddler Jean Michel Jarre.

The machine was amazingly popular in Germany, where it was used predominantly for desktop publishing and CAD.

The ST was the first home computer to feature built-in MIDI ports.

Released in 1986, the 1040 ST variant was the first personal computer to include 1 MB of RAM. When the price dropped to $999 it famously became the first computer to break the $1,000/megabyte price barrier.

One early tagline for Atari's ST range was 'Power without the price'.

Jack Tramiel included the Hebrew alphabet with ST's ROM character set to respectfully acknowledge his Jewish heritage.

Because the Atari ST hardware does not support scrolling, many games used large borders or frames around the playfield to reduce the amount of data that needs to be copied.

The last major gaming release for the platform was David Braben's *Frontier: Elite II*, published in 1994.

FTL's seminal real-time RPG *Dungeon Master* made its debut on the Atari ST.

The ST is home to what is arguably the world's first multiplayer first-person shooter. *MIDI Maze* used the ST's MIDI ports to permit up to 15 players to duke it out in a rudimentary 3D maze.

INFORMATION

Year released: 1985

Original price: £749.99 (with monochrome monitor)

Buy it now for: £10+

Associated magazines: ST Format, ST Action, Atari ST User, ST World

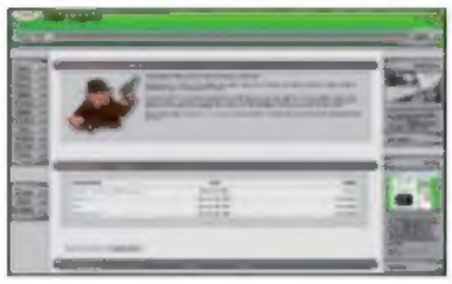
Why the Atari ST was great... Atari would still be remembered solely as the company that flushed the entire videogame industry down the toilet in the early-Eighties were it not for the saviour that was the ST. It may have lost the war to the Commodore Amiga, but this legendary machine was the first true 16-bit home computer and played host to such seminal games as *Dungeon Master* and *Starglider*. It was also brilliant for bedroom tunesmiths thanks to its built-in MIDI support.

COMMUNITY ATARI ST SITES TO WATCH

Atari Museum
www.atarimuseum.com
A robust archive backed by former Atari employees, this site has lots of info, images and other resources. It's well presented, with many sub-sections featuring unique layouts based on classic Atari hardware. Essential if you're interested in the ST and Atari in general.

ATARI.ORG
www.atari.org
A bustling and active community, Atari.org not only contains a wealth of information but also hosts several other sub-sites, run by Atari fanatics. It doesn't look like much but is easy to navigate and is a great place to keep up to date with developments in the Atari world.

Atari Legend
www.atarilegend.com
Solely focused on keeping the memory of the ST alive, Atari Legend doesn't get updated as often as we'd like but still contains a lot of interesting content, including reviews, interviews and demos. Well worth a look should you be inquisitive about Atari's home computer.



Little Green Desktop
www.atari.st
The name of this site alludes to the distinctive tint of the Atari TOS operating system; the design may hurt your eyes but the content is excellent. As well as running a spotlight on a particular game every day, it also delves back into old copies of *ST Format*.

YOU'RE A GEM

As the hardware neared completion Shiraz's team naturally began to look for possible operating systems to use with the machine. "The hardware was fairly easy for us to do and we beat the Amiga team to the punch although they had started at least two years earlier," says Shiraz. "The problem we both had was how to get a modern operating system." Early on in the development of the ST, Atari was contacted by Microsoft with the suggestion that the company port Windows to its new home computer. This idea was rejected as Windows was still two years away from being finished, and given the pressing need to get the ST in shops, Atari simply could not afford to waste time. Casting aside the expensive alternative of coding an operating system in-house, Atari got in touch with Digital Research – creator of the GEM system. "Commodore's Amiga team solved the OS problem by going to the UK to get a sophisticated multi-tasking system, but for us we really had no choice but to go with Digital Research," explains Shiraz. "We came up with a deal with Gary Kildall, president and CEO of Digital Research, to licence and use GEM and to use some of his engineers to help port it on the Atari ST. We sent a team of engineers to work in Monterrey where Digital Research was located." It was a task of truly Herculean proportions, as bugs in the GEM system were still being ironed out while the porting took place, but the team (pictured above) succeeded.

» Borregas Avenue, Sunnyvale, California – the site of Atari's HQ during the ST years.

VERSIONS

Atari STacy (1987)
Essentially a portable ST, this unwieldy beast ran off 12 'C' cell batteries and would grant a measly 15 minutes of use before exhausting its power supply. Ironically, it could imitate the more expensive Apple Mac Portable via emulation, and was even faster – proof that the ST's power was not to be underestimated.

Atari STE (1989)
The ST Enhanced was pretty much how it sounded – a slightly improved version of the original machine. It featured a larger colour palette, improved sound capabilities and a new graphics co-processor, but sadly few games were produced to take advantage of this new power, and the machine proved too little, too late.

ST Book (1990)
Amazingly, the STacy wasn't a complete disaster and this led Atari to produce a successor – the ST Book. Slimmer and more portable than its forebear, the ST Book was less power-hungry because it lacked a backlit display – which naturally made it hard to use in dim light.

Atari Falcon (1992)
The final entry in Atari's home computer range, the Falcon was so hurriedly rushed to market that the casing wasn't ready for launch and so it used the 1040 ST exterior instead. Discontinued after a year, the Falcon remains a popular platform for those interested in hardware modification.

» The ST's distinctive mouse was certainly eye-catching, but using it for long periods proved uncomfortable.

» The ST's TOS (Tramiel Operating System) in all its lurid green glory.

processor that communicated through a 16-bit external bus (the abbreviation 'ST' actually stands for '16/32'). "We had a meeting with the CEO of National Semiconductor, who was anxious for us to use their 32-bit NS3200 processor," remembers Shiraz. "It turned out that even though the Motorola 68000 was a quasi-32-bit chip, the performance turned out to be as good, if not better than the National Semiconductor's true 32-bit chip. Motorola had a number of parts that they could not sell as one of the parameters did not fully meet their specification, but we found that this particular parameter could be relaxed in our design and so we could use these parts that would have to be thrown away, saving both us and Motorola several million dollars." Amazingly, despite these cost-cutting measures, the ST was still able to outperform more expensive rivals. "Our design was so optimised for performance and cost that you could emulate the Apple Macintosh – if you had the Apple ROMs – and an application would run faster on the Atari ST," reveals a justifiably proud Shiraz.

As the project neared completion, Shiraz and his team started to realise just how amazing their achievement was. They had taken the ST from rough concept to final product in less than half a year, and when 85 per cent complete ST machines were shown at the CES show in 1985, it amazed the industry. "I was very proud that the team had accomplished so much in a short period of time," says Shiraz. When the machine officially launched in May, it marked the dawn of a resurgence for the previously ailing company and it speaks volumes for the popularity of the ST range that when Tramiel took Atari public in November, stock was selling for nearly triple its original price just a few months later. The ST had saved Atari from the scrapheap, and all in less than half a year.

Business or Pleasure?

It may come as a shock to learn that the man behind the ST isn't much of a gamer. "I'm not into games myself but I am quite aware of what needs to be done in the hardware to create good games," says Shiraz. "With the ST, the processor/memory bandwidth is highly optimised, leading to very fast graphical interactions. I think the entertainment software for the ST was reasonably good, but first and foremost this was going to be a consumer machine." Despite this obvious focus on business, the ST played host to some truly groundbreaking pieces of software and received sterling support from the likes of Bullfrog (*Populous*), Spectrum HoloByte (*Falcon*), FTL (*Dungeon Master*), Realtime Games (*Carrier Command*), Argonaut (*Starglider*) and David Braben (*Virus*).

The ST may have been great for games but it also proved to be a hit with musical types, too. "Right from the start we were interested in providing good musical capability," explains Shiraz. "Since we felt that the Yamaha chip in the ST was not as strong as we would have liked, we thought that we should put in an interface for external music access. We found that we could do it rather inexpensively using a Motorola serial chip and a connector for the MIDI-port. The total cost for this was 75 cents. The biggest problem was finding the space for connectors in the back. Musicians found it a great and inexpensive MIDI instrument."

Sadly, it didn't take long for Commodore's Amiga to overshadow the ST and as the Eighties drew to a close Atari's machine was starting to trail its opponent. US sales dropped off dramatically, but in Europe the machine remained a healthy success. Shiraz has his own theory on this disparity: "The reason is very simple – distribution channels. Atari did not have any distribution channels to speak of in the US. In Europe, on the other hand, we had a great cadre of ex-Commodore people and dealers that we could use."

Ironically, considering they were locked in battle for much of their life spans, the Atari and Amiga are intrinsically linked. "Jay Miner was at Atari in the old days and was involved in the design of their products," explains Shiraz. "He left Atari to design the Amiga. Atari had funded some of this effort and had an option to buy the Amiga, and when we took over in July 1984 the first order of business was to decide what to do with this option. The problem was that the Amiga was not quite ready and would need a lot of money to fully acquire. We decided to pass, but this put enormous pressure on our own development team. Commodore, on the other hand, did not have an internally developed 32-bit graphics-oriented machine or the confidence to develop anything internally, so they ended up buying the Amiga for between $25-$30 million and spent a further $20 million or so on it, releasing it a little after the launch of the ST. The roles were reversed – the Atari ST has a Commodore pedigree, while the Commodore Amiga has an Atari pedigree!"

To claw back some of the market, Atari sanctioned the release of an updated machine, dubbed the STE (with the E standing for Enhanced). Sadly the ploy failed and few programs took advantage of the STE's augmented capabilities. Shiraz's involvement was minimal: "I was on my way out of Atari at that time. I left in 1989." Other versions of the computer were also put into production, including the ambitious Atari TT and Falcon, but neither of these met with any degree of success. "The problem was that Motorola had lost the processor battle," comments Shiraz. "The TT was based on the Motorola 68030, a successor to the 68000. This processor was clearly inferior to the 386 and 486 from Intel. There was no way Atari could compete with Motorola processors." In 1993, Atari pulled the plug on its range of home computers in order to focus its attention on the ill-fated Jaguar console and sank once again into a period of recession.

Having created one of the quintessential home computer platforms of the past 20 years, what memories does Shiraz hold dearest after all this time? "The teamwork was outstanding," he replies. "Even today most of the members of the team look very fondly at that time as the best years of their lives. The total hardware development was done in the space of five months. I have not seen such an accelerated development for such a complex project in that amount of time."

» The man himself – Shiraz Shivji – pictured in the Eighties.

PERFECT TEN GAMES

There were so many great games released for Atari's ST. Sure, many of them also appeared on its more powerful Commodore rival, but, in all honesty, many of the games featured here proved to be as good, if not better than the Amiga versions. If we've missed any classics, why not submit them in the form of a profile at www.retrogamer.net

01

OIDS

- **RELEASED:** 1987
- **PUBLISHER:** FTL GAMES
- **CREATED BY:** DAN HEWITT
- **BY THE SAME DEVELOPER:** CHAOS STRIKES BACK

01 **We're willing to** put our neck on the line here and say that this *Thrust*-clone by Dan Hewitt is probably the best game of its type. Piloting a triangular V-wing fighter, your job was to travel to a variety of hostile planets to liberate the titular Oids – the planets' imprisoned android slaves. However, working against you was the strong gravitational pull of the planet's surface, which attempted to drag you into its sharp, mountainous maws. On top of this you also had to deal with hordes of rocket-spewing enemy spacecraft and your ship's rapidly depleting fuel gauge. The icing on the cake came in the form of a nifty level editor that allowed you to effortlessly mock up your own planets and galaxies to play through.

XENON 2: MEGABLAST

- **RELEASED:** 1989
- **PUBLISHER:** IMAGEWORKS
- **CREATED BY:** MARTIN DAY
- **BY THE SAME DEVELOPER:** CADAVER

02 **The Bitmap Brothers'** sequel to its seminal shoot-'em-up franchise was entrenched in trippy colours, eye-blistering visuals and a punchy soundtrack by acid-house musician Tim Simenon (aka Bomb The Bass). Playing slightly differently to its predecessor, however, *Xenon 2: Megablast* retained the vertical shooter ideals of the original, but would drop the vehicle-shifting and arena-setting for an unusual underwater backdrop, plus a unique vertical-scrolling perspective that allowed players to pull the camera backwards. While *Xenon 2: Megablast* feels somewhat sedate when compared to some of its Eastern contemporaries, the game still proves to be a great blast, and this Atari ST port is just sublime.

02

MIDWINTER

- **RELEASED:** 1989
- **PUBLISHER:** RAINBIRD
- **CREATED BY:** MIKE SINGLETON
- **BY THE SAME DEVELOPER:** WAR IN MIDDLE EARTH

03 **Many people are** put off by *Midwinter*'s complexity, but those who invest time into the game are greatly rewarded. Set in Midwinter, a sprawling island forged inside harsh snowy wastelands, the player must try to stop a maniacal general from overthrowing the snowy islet. Playing the role of a police officer, your mission is to explore the island, evade enemy troops, and enlist the support of the islanders. Played out through a first-person perspective, *Midwinter*'s harsh and bitter environment won't be to everyone's tastes, but it's definitely a place that every ST owner and strategy fan should take time to visit.

TIME BANDIT

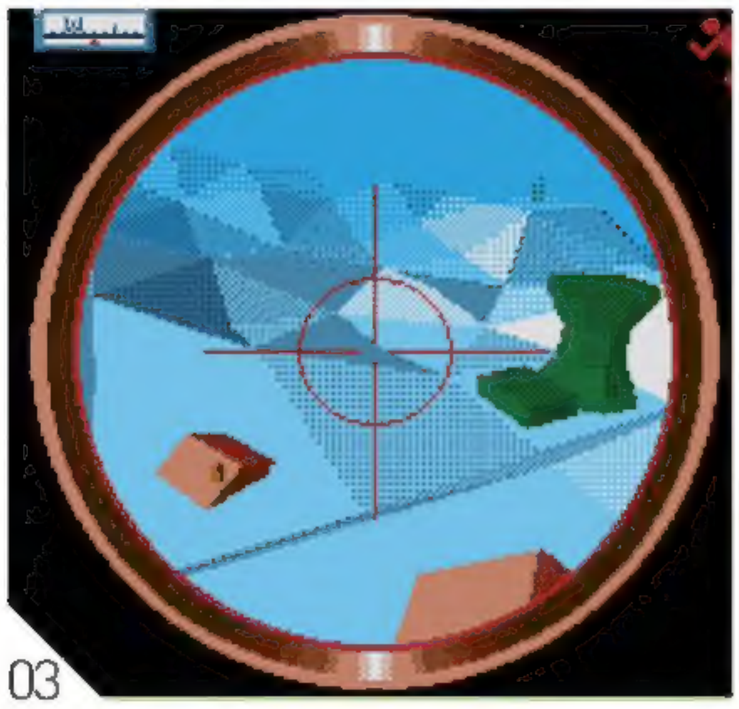
- **RELEASED:** 1986
- **PUBLISHER:** MICRODEAL
- **CREATED BY:** BILL DUNLEVY AND HARRY LAFNEAR
- **BY THE SAME DEVELOPER:** 8 BALL

04 **If you're after** a game that fuses elements of *Pac-Man*, *Bomberman*, *Gauntlet*, time travel and text adventures then you should track down *Time Bandit*. Debuting on the Tandy TRS-80 before being ported to the Amiga and ST, its authors, Bill Dunlevy and Harry Lafnear, set about refining it brilliantly with the extra power. As a treasure hunter, your mission was to travel to 16 distinct worlds to collect valuable artefacts. One of its neat touches is that many of the levels pay homage to classic arcade games. 'Shadowland', for example, is clearly a send-up of Namco's pill-chomping maze classic, *Pac-Man*.

NO SECOND PRIZE

- **RELEASED:** 1992
- **PUBLISHER:** THALION
- **CREATED BY:** CHRIS JUNGEN
- **BY THE SAME DEVELOPER:** ATOMIX

05 **No Second Prize** was a slick 3D motorbike racer that was clearly a few hundred CCs ahead of its contemporaries. The game featured six distinct drivers, 20 well-designed and diverse tracks and some staggeringly smooth scrolling. Bolstering its lavishness were its neat vector 3D graphics, a finely tuned difficulty curve and a sublime electro-rock soundtrack by one of the most established composers in the ST scene – oh and you could edit your own replays after each race, too (it was one of the earliest games to let you do that). If you're looking for a great alternative to the excellent *Stunt Car Racer* then you should really seek out this overlooked ST classic.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LETHAL XCESS

- **RELEASED:** 1991
- **PUBLISHER:** ECLIPSE SOFTWARE
- **CREATED BY:** CLAUS FREIN
- **BY THE SAME DEVELOPER:** STONE AGE

06 **Yet another ST** classic, *Lethal Xcess* is a masterpiece on the ST that pushes its technical boundaries to the limits. While there exist far better examples of the top-down vertical shooter (we've got a making-of one of them in this issue), *Lethal Xcess*'s greedy looking sprites, and frenetic kill-everything-that-moves gameplay, struck a chord with ST owners. A sequel to another underappreciated top-down vertical shooter called *Wings Of Death*, *Lethal Xcess* boasted a neat two-player mode and a novel power-up system that allowed you to power up your power-ups. But even with a pal and a super weapon this game is harder than pure maths.

CAPTAIN BLOOD

- **RELEASED:** 1988
- **PUBLISHER:** MINDSCAPE
- **CREATED BY:** PHILIPPE ULRICH
- **BY THE SAME DEVELOPER:** GET DEXTER

07 **The prospect of** getting sucked into your own videogame is one that few programmers – other than the team behind *Rumble Roses* – would relish, but this is the dilemma facing Captain Blood, and that's only the start of his problems. After being zapped inside his own binary, Blood discovers he's been cloned and each of his doppelgangers are leeching off his life-mojo. It's up to you to travel the galaxy, decipher peculiar alien text and track your targets before it's too late. A mix of *Tron* and *Blade Runner*, with some Giger-style imagery and Jean Michel Jarre tunes thrown in, *Captain Blood* is a gloomy but atmospheric RPG classic.

BLOOD MONEY

- **RELEASED:** 1989
- **PUBLISHER:** PSYGNOSIS
- **CREATED BY:** DAVID JONES
- **BY THE SAME DEVELOPER:** DEEP SPACE

08 **We were toying** with putting *R-Type* on this list, but felt David Jones' *Blood Money* was the marginally better side-scrolling blaster. It's smoother, looks amazing and has an innovative gameplay mechanic where certain enemies would rather pilfer your pockets than cause you damage. Anyway, sticking with the *R-Type* comparisons, *Blood Money* can best be described as Irem's game but set underwater. Controlling a chubby looking red submarine, your mission was simple: avoid hitting the walls, shoot anything that moves, collect the coins and kit out your vessel with all manner of power-ups. *Blood Money* is simple, sublime fun. Be warned, it's no doozey.

09

STARGLIDER

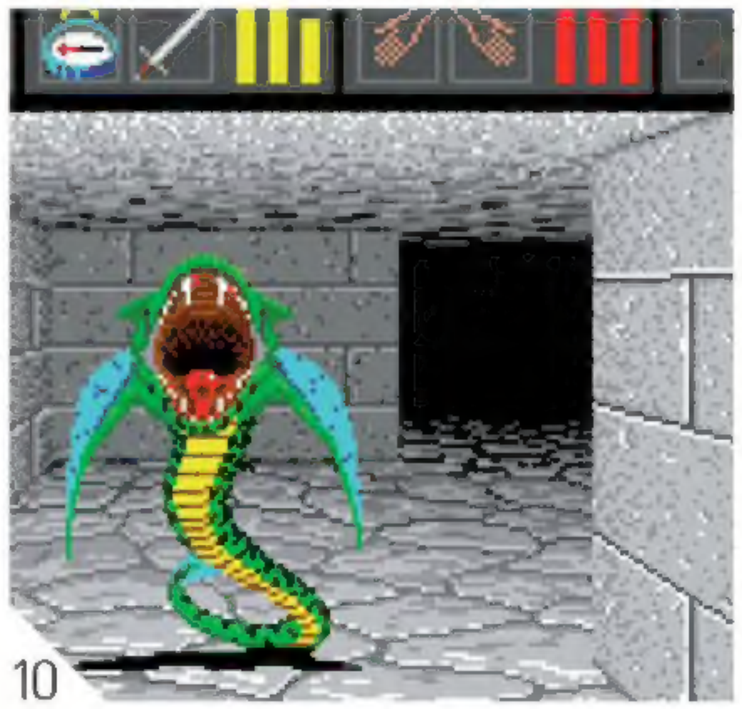
- **RELEASED:** 1986
- **PUBLISHER:** ARGONAUT SOFTWARE
- **CREATED BY:** JEREMY SAN
- **BY THE SAME DEVELOPER:** STARFOX

09 **One of Argonaut** Software's earliest games, *Starglider* clearly has the company's 3D vector stamp all over it. Your mission was to traverse the planet of Novenia and blast away any and all alien craft from inside your AGAV or Airborne Ground Attack Vehicle. Inspired by Jeremy San's love of Atari's brilliant *Star Wars* coin-op, *Starglider* became a high-profile release and a big hit after it appeared in cut-down-for-telly-competition form on popular children's television show *Get Fresh*. Packed with a 64-page novella, which was scribed by fiction author James Follett, *Starglider* was an engaging space blaster that slotted nicely between the fast-paced arcade action of *Star Wars* and the immersive reaches of the more strategic *Elite*.

DUNGEON MASTER

- **RELEASED:** 1987
- **PUBLISHER:** FTL GAMES
- **CREATED BY:** DENNIS WALKER, DOUG BELL
- **BY THE SAME DEVELOPER:** HYDROFOOL

10 A sprawling and flawlessly designed first-person RPG that oozed atmosphere, bagged itself a trove of awards and went on to influence a swathe of classic RPG brilliance, including the likes of *Lands Of Lore* and *Eye Of The Beholder*. The game is a brilliant portent of 3D labyrinthine levels, wonderfully imaginative creature designs and accessible RPG elements. It's brilliantly intuitive mouse-controlled interface, glorious colourful visuals, fantastic strident score and real-time combat, helped to make it a huge success around the world. The game has since spawned four sequels, with the latter, *Dungeon Master Nexus*, finding an exclusive release on the Sega Saturn, a game that never found a release outside of Japan.



10

ATARI ST
and the rest...

Often seen as a poor man's Amiga, the Atari ST nevertheless had a fantastic assortment of games available for it. Here then is a selection of some of its very best and worst titles.

1 B.A.T.
2 QUESTRON
3 HARLEY-DAVIDSON
4 TECHNOCOP
5 ADVANCED SKI SIMULATOR
6 WEIRD DREAMS
7 CABAL
8 OPERATION WOLF
9 ZARCH
10 ENCOUNTER
11 BLACK LAMP
12 OVERLANDER
13 LANCELOT
14 F29 RETALIATOR
15 R-TYPE
16 ULTIMA VI: THE FALSE PROPHET
17 ARMALYTE
18 NEBULUS
19 GOAL!
20 YOLANDA
21 THE ADVENTURES OF ROBIN HOOD
22 TINTIN ON THE MOON
23 DARK SIDE
24 IK+
25 THE SENTINEL
26 KID GLOVES
27 VERMINATOR
28 LICENCE TO KILL
29 PHANTASM
30 VIDEO KID
31 E-MOTION
32 JACK NICKLAUS CHAMPIONSHIP GOLF
33 WILD STREETS
34 CARRIER COMMAND
35 NITRO
36 THRUST
37 XENON 2: MEGABLAST
38 ROBOCOP
39 THE KING OF CHICAGO
40 EXOLON
41 PAC-MANIA
42 TREASURE ISLAND DIZZY
43 9 LIVES
44 CADAVER
45 ONSLAUGHT
46 WARLOCK
47 THE PAWN
48 FRED
49 SLEEPWALKER
50 ARCTIC FOX
51 EYE OF HORUS
52 TRACKER
53 WARHAWK
54 LAST NINJA 3
55 NEIGHBOURS
56 ZANY GOLF
57 HEIMDALL
58 JINXTER
59 PIPE MANIA
60 TEMPEST
61 SHINOBI
62 WANTED
63 SPINDIZZY WORLDS
64 ROGUE TROOPER
65 FIRE & FORGET II
66 MURDER
67 SUPER SKWEEK
68 LIFE AND DEATH
69 FLOOD
70 CORPORATION
71 NORTHSTAR
72 HELTER SKELTER
73 TNT
74 DEFENDER OF THE CROWN
75 TENNIS CUP
76 OIDS
77 STARDUST
78 LAST DUEL
79 GAUNTLET
80 KNIGHTMARE
81 WACKY DARTS
82 JAWS
83 DAY OF THE PHARAOH
84 PANG
85 SHADOWGATE
86 IVANHOE
87 VINDICATORS

Special thanks to AtariLegend.com

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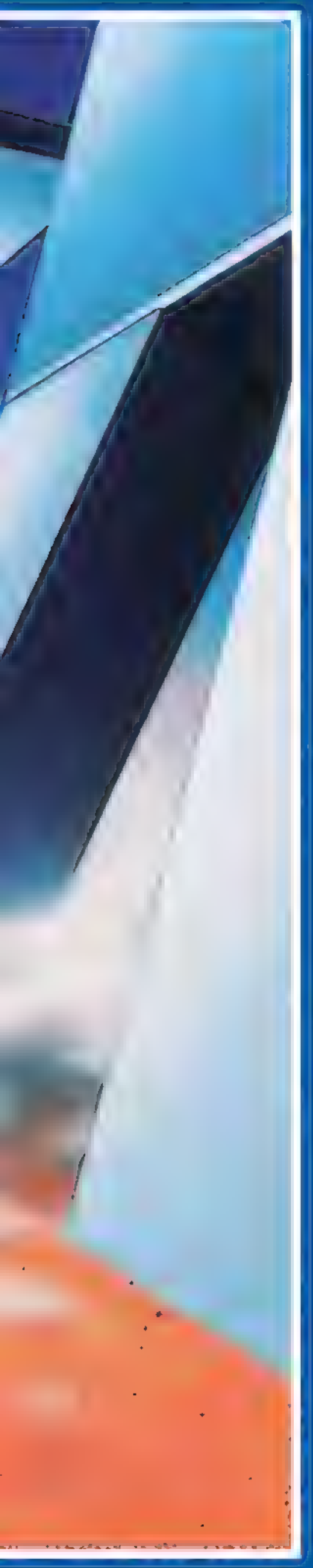
The Making Of...

"only a handful of people in the world had figured out how to do 3d"



STARGLIDER

Borne out of a love for the Star Wars cab, Starglider wowed on its arrival with stunning presentation and immersive environments. Andy Smith talks to creator Jez San and project manager Gary Sheinwald about organic game development, the rewards of success, and getting the OBE

"My father was exporting people's personal effects when they emigrated," says Jez San of his importer/exporter father. "It came in handy, because in 1978, when I was 12 and a half, he imported one of the first computers available, a Radio Shack TRS-80 Model I Level II. After playing all the games I could find on it, I got frustrated and learned to program so I could try and make my own. Then the BBC computer came out in 1981 and I was hooked. Finally, I had colour and multi-channel sound – the essential elements of a computer game – and having the built-in assembler was the most amazing idea."

You may well have heard of Jez San. Since the age of 16, when he set up Argonaut Software, he has been deeply involved in the industry, first developing games, then hardware, even working with Nintendo to develop the Super Famicom's Super FX chip, and more recently online gaming and mobile applications. Oh and he was awarded an OBE, too.

After first writing two books about the Sinclair QL, Jez began working on 1984's side-scrolling shooter *Skyline Attack* for the Commodore 64, and then something caught his eye in the arcades. "It was a cabinet that threw vectors around the screen like they would one day be superseded, and had *that* theme tune: the *Star Wars* cabinet.

"I loved it so much I tried to buy the home computer rights from Atari," says Jez. "They were playing ball, so I started development of my own version, and then all of a sudden they said they weren't interested, so I detoured my game and made it more original, inspired by, rather than based on, the *Star Wars* coin-op.

And that, folks, was the genesis of something very special indeed.

"I was talking with Amiga in 1984 and was negotiating to get one of their prototype models, codenamed the Lorraine. Then Commodore bought them and everything changed, so I bought a classic Mac and started work on my 3D technology, and *Starglider* was born. When the Atari ST and Commodore Amiga machines finally came out, I ported to them from the Mac."

The Mac version was later dropped as Jez didn't feel the system was really a home machine at the time. "It was many years," he remembers, "before a Mac version came back. What with all these trials and tribulations, the game would be in development for three years.

Project manager Gary Sheinwald remembers now his own involvement with the game began. "Although *Starglider* was under way when I joined [*Starglider* publisher] Rainbird in May 1986, I'd known Jez for about four years by then and had seen *Starglider* evolve from a rotating cube

The Making Of...
STARGLIDER

on a rented Apple Mac to something a bit like the *Star Wars* arcade game, and then start to become the *Starglider* we all know."

And was he immediately blown away? "Pretty much anything in 3D was exciting then. Only a handful of people in the world had figured out how to do it, and to see hidden line removal and animating objects – remember that games such as *Battlezone* didn't have any significant animation; *Starglider* had bird-like craft with flapping wings – was very impressive at the time."

So no, it was no longer a *Star Wars* game. There were no Jedi involved and very little heavy breathing, but *Starglider* was a revelation in its own right – crisp vectors, a free-roaming 3D world, and smooth gameplay that mixed the best of the blaster and flight sim genres. Impossible as it may seem now, in this time of big development teams and even bigger budgets, *Starglider* 'evolved', as Jez explains: "The game had an initial design and several of the elements were there, as well as a whole lot of stuff that didn't work in reality. The game mostly evolved from the loose spec. I just wanted to make the best game I could in the time available."

And feedback was, of course, important. "Jez was very open to feedback, especially on gameplay difficultly ramping, damage values, scoring, etc," Gary remembers. "I designed all the level maps on graph paper and typed in all the values for everything such as hit points, scores, damage, refuelling/recharging rates and so on. Gameplay developed as we went along. If I wanted something changed and Jez agreed, he'd make a code change, or I would make a data change directly myself. These days it'd be rounds of focus group testing and QA department input. None of that existed then. I did 99 per cent of the QA – there was no testing department and no external testing. Everything was very organic, and also quite informal. Back then there were no rigid production processes like we have today."

"I'm one of those coders that likes to informally think about how things are to work and then tries it out," Jez continues. "Then tweaks and retries. The continual tuning led me to eventually make my own assembler program called ArgAsm to reduce the turnaround time between tweaking and testing a game. I also, jointly with Foo Katan, developed the first PDS, the Programmers Development System. It was used by David Braben and Ian Bell on porting *Elite* from the BBC to the C64, and it's what got me my first break with Rainbird. I agreed to help them port *Elite*, if they agreed to give me my own game deal – *Starglider*."

And so *Starglider*, along with text adventure *The Pawn*, became the launch title for Rainbird's line of

What there may lack like a Starglider but as, structural fact, is commonly discussed it grew up to be good. (Jet Mastro)

"effectively my parents financed the game because I was living at home for free"

games for the Atari ST and Amiga, and the technical prowess on display in the game assured its success. As did its innovation.

Long before *MechWarrior*, *Starglider* had a neat little idea to do with firing missiles: you fire it and then switch to that missile's POV, guiding it to its demise – and, hopefully, one of the enemies' as well. "I loved the idea of changing the 3D viewpoint," Jez remembers. "That sounded exciting to me, but then I wanted you to be able to control it and see where it went, to guide it. Nowadays, I guess we call them RPVs in the military and 'after touch' in games, but back then it was sort of novel."

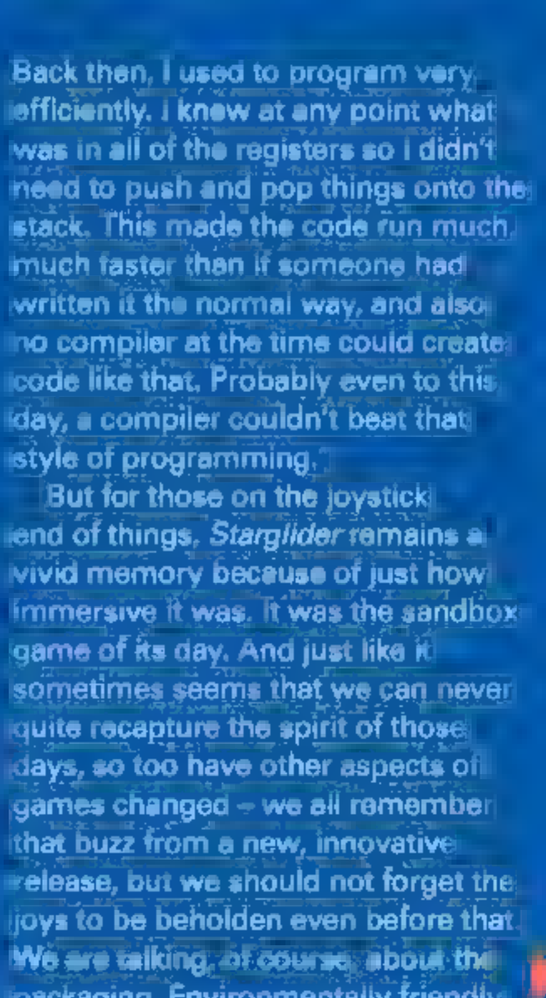
Groundbreaking as it was, the production of *Starglider* was not without its trials, especially for a bedroom coder. Sort of...

"I did have an office at home, so I wasn't technically in the bedroom," explains Jez, "but it was certainly a home project, so effectively my parents financed it because I was living at home for free. *Starglider* took from 1984 to 1986." No dev kits back then, though. "There were many challenges, like inventing the 3D system, and on the Atari ST *Starglider* was the first game to use sampled sound. I was sat with my ST open, measuring voltages off the sound chip, and modulating the volume controls in real-time on the three channels to find what voltages came out so that I could play samples. I hired a Roland Juno synth to sample the song, and the title music by Dave Lowe let the *Starglider* theme sing out and was much appreciated at the time. He has since moved on to make TV themes like *Grand Designs*."

Producing the game was becoming a mammoth task, and was certainly a labour of love for more than just one man. "Although it was a bedroom-developed game, we shouldn't forget that even then plenty of other people contributed to the final product," Gary says. "Paul Hibbard did all the 3D models on graph paper; I was the poor bastard who had to type in all the co-ordinates for every point and every frame of animation by hand; Clare Edgeley was the voice of the ship computer; Rick Clucas coded some of the low-level system stuff like mouse input/output; and Jez's mum, Zoe, brought up tea and biscuits throughout the day and night during the final days of sleepless development. I don't think the game would have been released on time without her...

"I farmed out the bits I didn't have the time or skill to do," Jez recalls. "So I could focus on the gameplay."

Coding back then was a hardcore thing, not for the faint-hearted. The good old days, when coders were inventive and computers were stubborn in their limitations, are something that Jez fondly remembers: "You took control of the machine and hit the pedal to the metal. You programmed in assembly or machine language, and you accessed the hardware directly to make it 'sing' in ways it was never designed to. Nowadays, you don't talk to the hardware directly, you use libraries and APIs. All the hard stuff is done for you and all you do is tell it what you want it to do, rather than help it do it, like we used to do. And gone is assembly language. Nowadays people program in C or even higher-level languages where they have little control over what is happening on the actual microprocessor at a register level.

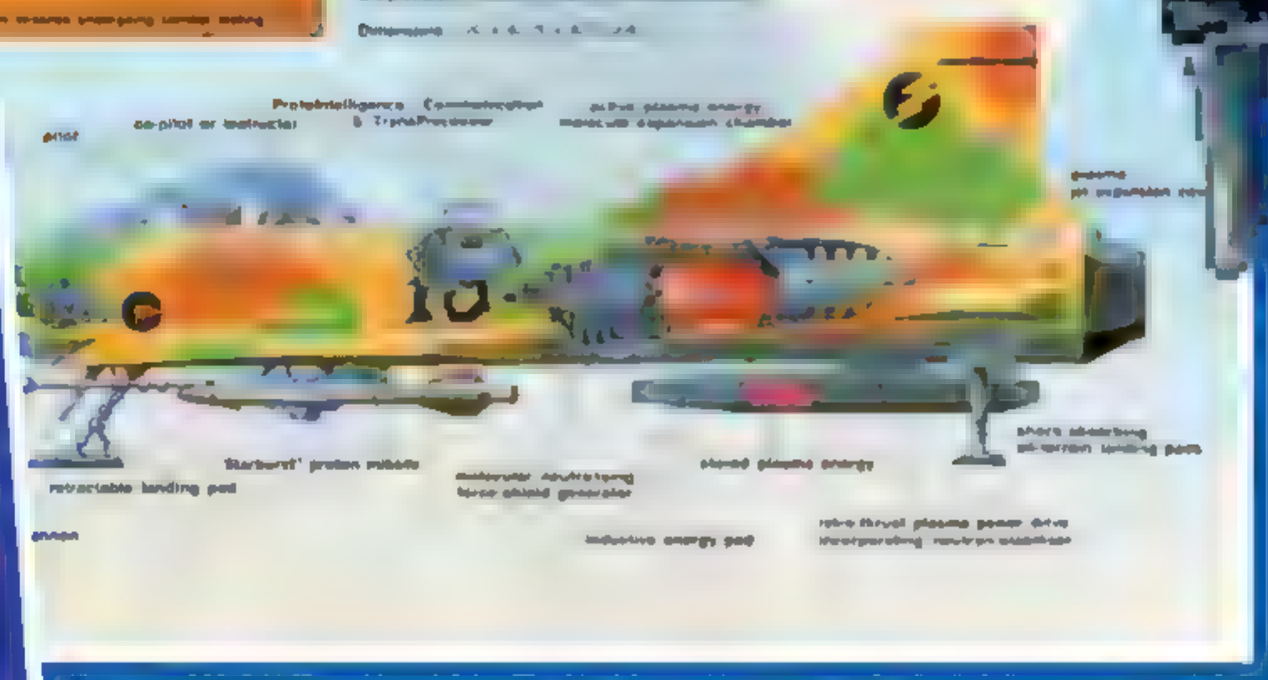


Back then, I used to program very efficiently. I knew at any point what was in all of the registers so I didn't need to push and pop things onto the stack. This made the code run much, much faster than if someone had written it the normal way, and also no compiler at the time could create code like that. Probably even to this day, a compiler couldn't beat that style of programming."

But for those on the joystick end of things, *Starglider* remains a vivid memory because of just how immersive it was. It was the sandbox game of its day. And just like it sometimes seems that we can never quite recapture the spirit of those days, so too have other aspects of games changed – we all remember that buzz from a new, innovative release, but we should not forget the joys to be beholden even before that. We are talking, of course, about the packaging. Environmentally friendly

The attract mode, looking not so attractive...

The Making Of...
STARGLIDER



"others were buying cars and houses, whereas my cash was making better games"

they perhaps weren't, but who can forget that feeling of holding one of those huge boxes and letting the bottom half slide out? And how much sweeter was it when you found more than just a disk or two in there? Well, *Starglider* contained a novella, written by author James Follett.

"My and Follett's agent was Jacqui Lyons, a former literary agent who had decided to be the first agent in computer games," Jez explains. "It was Jacqui's idea to include the novella in the box, as it had been successfully done with *Elite* the previous year." (*Elite: The Dark Wheel*, written by late fantasy author Robert Holdstock, was packaged with most versions of *Elite*.) "James turned out to be an excellent choice, and he and I hit it off," Jez continues. "We bounced ideas off each other and he was involved early enough to influence the game design with his story, so it worked really well."

Starglider's story revolves around the Sentinels – automated robots charged with protecting the peaceful planet of Novenia, leaving the human residents free to do sci-fi stuff. But then the Sentinels went and accidentally blew up a load of deep-space migrating birds, the Stargliders, after mistaking them for enemy craft. The futuristic answer to Bill Oddie went nuts and the Sentinels were reprogrammed to not identify the birds as threats, allowing the nefarious Egrons to disguise their ships as Stargliders and attack. Luckily, Jason and Katra, technicians extraordinaire, were away on a moon at the time of the invasion and saw everything. Not best pleased, they got themselves into a space fighter pronto and the war was on.

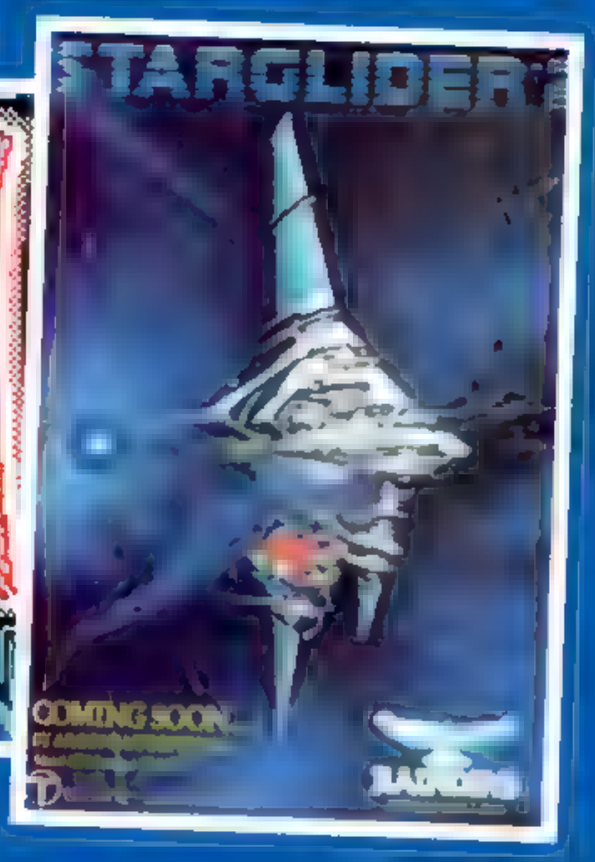
"We tried to deeply embed the story into the game," Jez says, "but the story was definitely an afterthought. I was already a year or so into the game development before James got involved, but he certainly allowed me to change or justify other things, to fit in line with the story. And I sort of loved at the time that the hero was 'Jay-son', and my 'girlfriend' was Katra."

Still only 20 years old, the release of *Starglider* found Jez meeting with considerable success. Quite a lot for someone so young to deal with. And what did he do? What do you think?

"I bought a new car. It was a Renault 5 GT Turbo. Actually, I technically bought it with my advances cheque and I recall not driving it for the first week and letting my friends drive it, because I hadn't finished the game. As soon as the game shipped, I took it for a spin and boy was it a fun car. Very chuckable."

Not content with just points on his licence, though, Jez had his business head already firmly screwed on.

"My contemporaries like David Braben and Archer Maclean were enjoying the fruits of their labour and buying nice cars and houses with their royalty cheques, whereas my cash was going straight back into the company to fund the teams and make bigger and better games, so although *Starglider* grossed a large amount of money for a 20-year-old, it all went back into the company, Argonaut, to let us get an office, hire



the teams, buy some computers. I hadn't figured out at the time how to make any money personally. It didn't dawn on me until much later that you can sell a company or go public, thus justifying not taking any money out of the company and letting it ride for a few years.

"The game was a success," Gary says, "but back then there wasn't the same spotlight on unit sales, gross revenue and so on that the industry focuses on today. Also, back in those pioneering Rainbird days, I expected every game to be a success, and everything was pretty new and exciting. It was nice to see a game that I contributed to quite significantly win awards, though."

And would Gary change anything?

"I don't think I would change anything significant, based on the parameters we were working with then: available time, and the limitations of the hardware. Probably just the stupid box cover art."

Since the days of *Starglider* and its sequel, Jez has continued to move through the gaming world, helping to set up TIGA – the national trade association set up to represent the interests of game developers in the UK – and founding online poker game company Crunchy Frog (later PKR) and, more recently, mobile applications developer Origin8. But it has been quite a while since he actually sat behind a computer and delved deep into the intricacies of coding for himself.

"I miss being hands-on," Jez admits, adding: "I'm still a geek at heart, though I get to do geeky things that are non-programming these days, like design most of the tech in my uber-wired home. I keep saying that one day I will start programming again. I liked being creative and solving problems that some thought insurmountable, like having 3D surround sound in a game encoded in real-time (*King Arthur's World*) or doing 3D real-time graphics on a 2D character-mapped game console (the SNES Super FX chip). 3D features quite heavily in my past. Many of the innovations I was involved with are 3D-related, even today with 3D poker. My proudest moments were creating things that made a big difference, either to the games players or the industry.

"Of course, my mum's proudest moment was when I received an OBE from Prince Charles at Buckingham Palace." An OBE for videogames? Oh, yes! Jez San got himself one of them.

"It's sort of surreal that the government at a moment in time decided to reward someone from the game industry with such an honour," he says. "Yet again, like when I got into computer games in the first place, I was in the right place at the right time. I was one of those who was doing my bit for the industry at the time. I helped form TIGA – heck, I even came up with the name – And I was regularly giving talks at conferences and universities. I was also lucky enough to have had a company – actually two – go public and make me some cash, so I wasn't trying to profit from the industry and was in a mood to give as much back as I could. I guess this got noticed and I ended up first in line for an OBE, which was a wonderful honour and something to show the grandkids one day."

Special thanks to Chris Wilkins for putting us in touch with Jez San, and to Richard Hewson of **birdsanctuary.co.uk** for his invaluable help with images and helping us to contact Gary Sheinwald.

THE MAKING OF...

BUBBLE GHOST

NO KILLING, NO DYING: JUST A QUIRKY, INVENTIVE LITTLE PUZZLER. DARRAN JONES SPEAKS TO CHRISTOPHE ANDRÉANI ABOUT HIS CHARMING PUZZLE GAME

So, Christophe, can you tell us where did the original idea for *Bubble Ghost* come from?

I really wanted to program a game that didn't feature any violence in it. I was also keen on utilising the Atari ST's mouse so that I could control a sprite with its directions and also use its two mouse buttons.

What about the bubble?

I just had this idea of guiding a bubble around a maze and using something to blow on it. The first idea I came up with was to use a blow dryer, but I soon discovered this idea presented quite a big problem. It just wasn't logical to have a blow dryer move through walls, as if the bubble got stuck against one there was no way for the blow dryer to blow it away. So I needed to come up with something that could logically pass through walls.

Like a ghost?

Exactly. Once the idea of the ghost hit me my game concept was born. A ghost can go everywhere on screen and blow on the bubble without disturbing the environment.

So how long did *Bubble Ghost* take to create?

In total I spent three months programming *Bubble Ghost*. The biggest difficulty I faced was actually creating the maze. The maze itself is a table and I had developed a system of codes to best optimise the display. *Bubble Ghost* was programmed with C and assembler languages using a Megamax C compiler. In addition to the maze, another concern was simply drawing a nice-looking ghost.

I remembered some comics that I used to read when I was young and started to draw several white ghosts until I found a look I was happy with. The ghost was quite tricky to animate, as I had to draw a cycle of different sprites for each position. I also ended up spending a fair amount of time on the bubble design. I wanted to create a bubble that looked real and was slight

and fragile, so to do that I drew a lot of sprites with very subtle changes. The end result is that, when the animation is playing, the bubble appears to be very delicate.

■ Was it hard finding a publisher for such a unique game concept?

No, but that was mainly because I already had a publisher. The very first game I programmed was *Karate* for the Oric-1. When it was finished I began looking for a suitable publisher, so, rather than send them letters, I contacted everyone by phone. Despite calling ten different publishers, only ERE Informatique asked to see me. So, I recorded my game on a music tape and I presented my game to Philippe Ulrich. He liked *Karate* so much we started working together.

■ So publishing *Bubble Ghost* was quite straightforward, then.

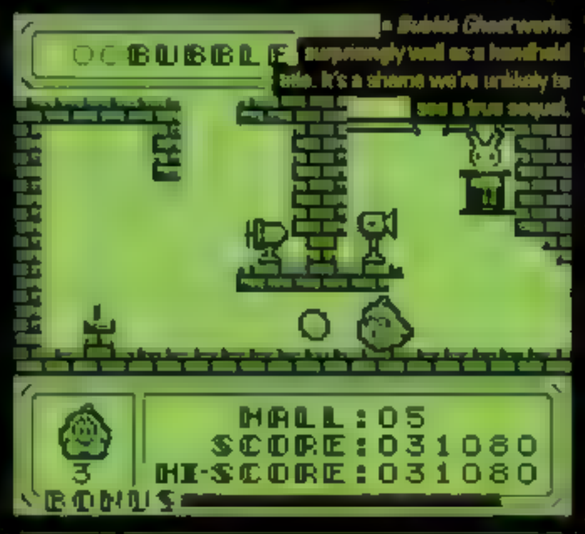
Definitely. Once *Bubble Ghost* was finished I presented it to my editor and it was just a case of making a few little tweaks and ensuring that a two-player mode was included.

■ So why make it on the Atari ST?

Simple, really: it was my favourite computer. It was a new generation of computer with a mouse and access to a lot of colours, and I loved using it. I initially had quite a few problems when programming *Turbo GT*, but I received help from a lot of friends and was able to get the project finished. It turned out to be a good trial by fire, because when I was creating *Bubble Ghost* it was a complete pleasure to design, as I already knew what was possible on the Atari ST and how best to achieve it.

■ Were you surprised by the solid reviews that *Bubble Ghost* received?

Yes I was, as *Bubble Ghost* had some very nice reviews. It was certainly not a mega hit, but the reviewers appeared to like the game concept – no violence – along with the actual concept, as blowing a bubble was totally new at the time.



» *Bubble Ghost* works surprisingly well as a handheld title. It's a shame we're unlikely to see a true sequel.

■ Why did you pay homage to other videogames like *The Pawn*?

It was just my way of showing tribute to games that I really admired. *The Pawn* impressed me with its amazing graphics; it was so photorealistic and I'd never seen that on a computer before. It was the same with *Mercenary*.

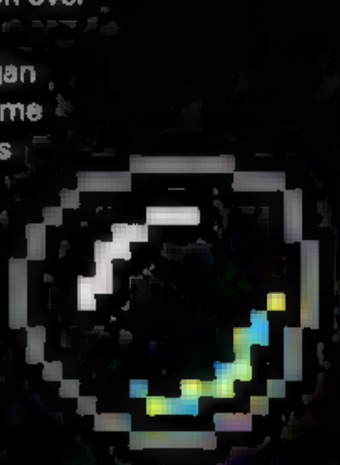
■ What do you think of the other conversions of *Bubble Ghost*?

I was really impressed. The publisher would ask me for some technical notes so the teams could convert it, and that's as far as my involvement went. Despite my notes not always being accurate, the teams did great jobs.

■ Did you ever attempt a sequel to *Bubble Ghost*? If so, how much progress did you make?

Yes I did, but some publisher problems stopped it from actually happening. Shortly after the publishing of *Bubble Ghost*, ERE Informatique was taken over by Infogrames, who asked me to make *Bubble Ghost* 2. I began work on it and started creating some early design ideas, but Infogrames stopped sending me royalties for *Bubble Ghost* sales. As a result, I stopped work on the sequel and hired a lawyer to ensure I was paid. We eventually found an arrangement, but I've not really been programming since.

» Behind *Bubble Ghost*'s bizarre imagery lies a strangely compelling title.



IN THE KNOW

» **PUBLISHER:** ERE INFORMATIQUE

» **DEVELOPER:** CHRISTOPHE ANDRÉANI

» **PLATFORM:** ATARI ST, AMIGA, COMMODORE 64, SPECTRUM, AMSTRAD CPC, DOS, APPLE IIGS, GAME BOY

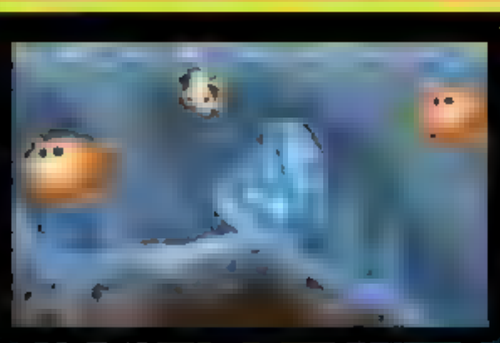
» **RELEASED:** 1987

» **GENRE:** PUZZLE

BUBBLE GHOST 2 IN THE MAKING

We asked Christophe what he thought about *Soul Bubbles*, a game that we'll ever get to a *Bubble Ghost* sequel.

"It's a really nice game with lots of clever ideas and a few changes compared to my game. It's certainly not a copy, but it uses the same idea: blowing a bubble to guide it to a goal. In *Bubble Ghost*, when your bubble touches something it explodes, but in *Soul Bubbles* you can touch everything and the challenge actually lies elsewhere. The creators did contact me about their game and I think it's really good, but I'm happy to have been the first one to think up the concept."



THE Dungeon MASTERS

A QUARTER OF A CENTURY AFTER FTL'S DUNGEON-CRAWLING CLASSIC CAPTIVATED AN ENTIRE GENERATION, DAMIEN MCFERRAN CATCHES UP WITH THE KEY MEMBERS OF THE TEAM TO TALK ABOUT THE INCREDIBLE INFLUENCE OF THIS GAME-CHANGING RPG

Incredible as it may seem to those of us who can vividly recall hunching over a glowing monitor, painstakingly tracing out maps on graph paper, 2012 marks the 25th anniversary of FTL's genre-defining action role-play game *Dungeon Master*. **Retro Gamer** recently caught up with several members of the original development team to talk about the production of this amazing title, its legacy and what the future holds for the series. In attendance were Doug Bell (director, programmer), Wayne Holder (producer), Mike Newton (second unit director, programmer), Russ Boelhauf (marketing director), and Nancy Holder (writer).

When making *Dungeon Master*, what were your main sources of inspiration, both individually and as a team?

Wayne Holder: Well, several people on the team had *Dungeons & Dragons* experience, and we also got really tired of the little stick-figure dungeon games that we were seeing and we wanted to do something that had real graphics. I remember we talked about that a lot at the time.

Doug Bell: My inspirations for getting into the business were *Ultima II* and *Wizardry*, and seeing those games and thinking, 'Well, I could do that'.

WH: You do remember the primary reason why we did *Dungeon Master*?

Russ Boelhauf: Girls? [eruptions of laughter]

WH: Well, apart from that! We'd just shipped *Sundog*, and it was selling like crazy and we had no plan for a sequel, or anything – we hadn't planned on success. So *Dungeon Master* was going to be the quick 'knock off' game. It eventually took us two years to write!

Mike Newton: I think part of the inspiration was not the source material or the subject matter, but was the sudden availability of equipment that everybody could own that had really cool graphics ability.

WH: Yeah, the Atari ST really changed things.

RB: And probably another thing was movies. We wanted to replicate that cinematic experience.

MN: I remember one thing we used to talk about was the opening scene in *Raiders Of The Lost Ark*, where he goes in and pulls the head and the big stone falls...

WH: That was the inspiration for the whole puzzle idea.

MN: Right. And the idea behind the

whole labyrinth and first-person view that was used.

WH: It was interesting trying to come up with something that would seem realistic on a machine that didn't have the capability to do anything like real 3D.

We can vividly recall being scared witless by *Dungeon Master* on more than one occasion. Did you deliberately try to create moments of terror for the player?

Nancy Holder: Yes.

DB: And that's Nancy Holder, writer of several horror novels! [laughs]

NH: We tried to make it scary so that the player could feel engaged. We tried with background noises and all kinds of other things to make it creepy.

WH: Stuff that I didn't think would be scary was scary. Like you'd forget there was a Mummy right around the corner at the start of the game, and you would go in to do testing and this thing would scream at you – that caught me off guard a number of times! My daughter Belle, who is now 15, was playing *Dungeon Master* on an Atari ST about a year or so ago and she got totally stressed when she ran into the Mummy, she was almost panicking. It still works!

DB: I think the puzzle element helped us. When you're sitting there trying to figure something out, that was usually just the right moment to hit you with something that you weren't expecting!

What element of the game do you feel presented the biggest technical challenge?

DB: Sound was a big one because the chip in the Atari ST was only designed to do bleeps and looped tones. Wayne was the one who figured out how to make the Atari ST sound chip do digital sound, and that was after Mike spent a couple of weeks at least trying to get some type of reasonable sound from that chip.

Doug Bell shows his videogame-obsessed son, Sean, *Dungeon Master* for the first time. How he kept it quiet for so long, we're not sure.

Dungeon Master's extensive development period was thanks to the profit generated by FTL's first game, space trading sim *Sundog: Frozen Legacy*.

MN: A major technical challenge in general was just making it real time, making the graphics fit within, what was it? How big was the memory?

DB: It had to fit into 512k. We ended up with about 380k – the rest of it was unreclaimable from the operating system.

MN: So between the limited processing power and the limited memory, to make that all run real time was a pretty big challenge.

DB: So far, the games at that point had all been turn-based and you could take as long as you wanted to think about what you were going to do next, and we knew we wanted to put the player under the pressure of time.

WH: Most people responded to the graphics but I think that was really what defined the game more than anything else. The fact that it was real time and it was this complete simulation; people were amazed to find out that everything, everywhere was being simulated all the time.

DB: 'Cause we weren't smart enough to figure out how to do it any other way!

NH: Also, you had a big question about how to introduce people into the world. You didn't know if you should have a list of character traits and have you pick your name, or should you just make the person feel like those things were chosen – how do you go from being a player to being 'in' the game?

WH: There were some of us that weren't hardcore gamers who just wanted to pick a character and get going, and there were the purists who wanted the character 'just so'. I was surprised that was such a big issue; there was a big schism in the team about that.

MN: I remember Andy Jaros, who did all the graphical stuff, made this character construction kit where you could not only have a moustache, you could have 32 different moustaches, so you got just the right moustache. And every female character had a number of brassieres she could wear. [lots of laughing all round]

DB: The fact that we had people on the team who weren't gamers

DUNGEON MASTER BESTIARY

SCREAMER
Although it resembles a harmless tree, the Screamer is actually a mobile and highly aggressive enemy. It emits a high-pitched shrieking scream – hence the name – and drops edible chunks when killed.

TROLIN
Slime-covered, club-welding brutes, Trolin move around in packs and can quickly dispatch any adventurers foolish enough to oppose them unprepared. Once slain, some Trolins drop a wooden club.

WIZZARD EYE
Also known as Beholders, these freakish floating masses of eyeballs are capable of casting harmful spells against your party. They can also open doors using magic, so hiding from them can be quite difficult.

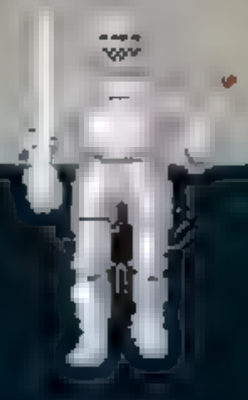
GIGGLER
One of the few enemies in the game that can't actually damage you, the Giggler instead pilfers items from your character's hands before running off. Chase them down to reclaim your valuable items

PAIN RAT
Blood-soaked vermin with razor-sharp teeth and a terrible temper, Pain Rats are another valuable source of food in Dungeon Master. Rat drumsticks are apparently more appealing to an explorer than you might assume.

GIANT SCORPION
A massive monster covered in a tough protective shell and capable of dealing out incredible damage to your party, the Giant Scorpion is certainly not a foe to be taken lightly. Keep on your toes and try to trap it in a doorway.

SKELETON
To look at them, you'd assume that these spindly warriors posed no great threat, but the reanimated skeletons in *Dungeon Master* are ferocious opponents, capable of swift movement and quick, deadly attacks.

ANIMATED ARMOUR
An incredibly tough enemy thanks to its thick protective armour, these ghostly warriors will cut your team to shreds in seconds. Carefully planning can win the day, and once killed they drop armour.



VEXIRB
Don't let the diminutive dimensions of these pint-sized wizards fool you – they're able to cast some pretty dramatic spells against your group. Thankfully, they're weak against melee attacks.

MUMMY
This bandaged baddie is the first monster you meet in the game, and arguably one of the most iconic. It's also been the cause of many soiled undergarments among novice players.

GHOST
Because of their otherworldly, supernatural nature, you'll need a special weapon to defeat the malevolent spirits that roam the dungeon. Certain spells are effective, but not all of them are useful in banishing the ghoul.

MAGENTA WORM
This slimy foe is especially dangerous when encountered in large numbers, but success in battle gains you access to a supply of nutritious and delicious Worm Rounds, which can be eaten to restore your stamina.

GIANT WASP
These flying insects move quickly and can be tricky to hit with a melee attack, but if you're prepared you can use projectiles to bring them down without incurring any damage from their stingers

ROCKPILE
Initially appearing as a harmless pile of rubble and wood, closer inspection reveals a deadly monster lurking underneath. They use their disguise to catch unwary individuals. Time your attacks carefully.

LORD CHAOS
The antagonist of Dungeon Master, and the reason that you and your allies are taking up arms. He cannot be harmed by spells or weapons, so you'll have to find another way to bring him to his knees.

actually saved the game from being an extension of what had already been done. Some people said 'I don't wanna go and pick my stats, let me just pick a picture'. So we came up with a compromise was that you could 'resurrect' or 'reincarnate'. You could either get them with their stats, or you get them and start fresh.

Were there any ideas that didn't quite make it into the final version of the game?

DB: Yes. We actually maxed out the one disc and the RAM, and that pretty much defined when we had to be done!

MN: But there were no good ideas that didn't make it into the game.

WH: I think that one of the more interesting periods of development was when we were all developing the different puzzles and trying them on each other. Dennis Walker, who was assistant director on the game, had taken a class at the University of California about some kind of theory that if you get interrupted halfway through doing something, you won't remember how to go back and complete the task. So he created this puzzle that was based on that theory; I don't remember which one it was, but that it was one of the puzzles that everybody swore at, because you couldn't ever get through it as you kept getting distracted!

DB: In terms of ideas that didn't make it into the game, we had many things we would do and somebody else on the team wouldn't really like it, and I think that it was the willingness to have the one person outweigh the rest of the team that really forced us to find better ways to do things.

WH: There was the big discussion we had about just reaching in and grabbing stuff, you remember that?

DB: Yeah. I was working on this complex system on where you could look down at the floor and you could pick up things around you, and Wayne says 'Well, it's right there, why can't I just reach in and pick it up?' That was sort of a 'Well, yeah' moment. And Wayne was actually responsible for a lot of those moments. He would just come in and say 'Why don't you do it that way?'

WH: I didn't have to program, so I thought it was easy to do!

RB: Forget everything you've read about Steve Jobs, this is the man! [laughs]

> "I LOOK AT PEOPLE TALKING ABOUT THE CHRONOLOGY OF COMPUTER GAMES AND SOMEHOW WE SEEM TO BE LEFT OUT OF A LOT OF THOSE. IT DOESN'T QUITE SEEM RIGHT" DOUG BELL

What are your fondest memories from the development period? What stands out as being a real highlight for you?

DB: Most of it, actually. We did a lot of stuff together. We did dinners, volleyball, movies... It was a really, really fun time. We were more family than business. And all the time Wayne was probably looking at the finances was wondering what was going on! [laughs]

WH: It was really kind of cool, especially after *Sundog* was released and became a hit – we kind of had some money coming in. And we could be a little less stressed about the whole thing; it was easy to just relax and think about doing the game. I think that's why we spent so long doing it; we got so caught up in it that we just didn't want to let it out of the door until it was as good as we could possibly make it. It didn't make any business sense of course, but still.

RB: When we sent things out to beta testers, and we had various comments back...

MN: Oh, those were the best.

Every item in the game has a weight, and loading your champions with too much stuff can prove detrimental.

The beginning of the game sees you selecting your four champions.

RB: Especially the guy who sent it back after having axed it! [laughs]

WH: We had a game come back to us with the message: 'Take this aggravating piece of shit and shove it up your ass'. The disc was chopped to pieces with an axe, it was just shredded!

MN: It was funny, but at the same time it was just a little frightening!

RB: I really loved how we brainstormed on stuff; we had the huge whiteboard onto which we just wrote every idea down.

DB: Pain Rats from hell! [laughs]

MN: OK, I'd better explain that. At one point we had a clean whiteboard and we had about five columns and started randomly writing words to look for titles, or ideas, or whatever. And in the end they were just a bunch of words, except juxtaposed side by side were the words 'pain' in one column, 'rats' in the next and 'hell' in the following column. We were like, that's a character in the game: Pain Rats from hell! [laughs]

• Monsters often attack in packs, and can tear your team to pieces if you're not prepared.

WH: Andy really got into it, he had this whole mythos behind it.

MN: He worked up a back-story on Pain Rats that wouldn't end! [laughs]

The critical reaction was amazing. How did it feel to get such overwhelming praise?

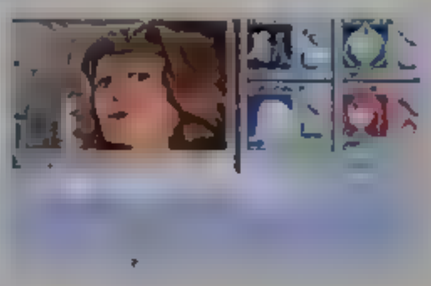
WH: It was a little bit stressful, I mean the same problem we had before – we have a success and we don't have a plan for a sequel. We hadn't really learned from the first time around. I think of Robert Rodriguez's comment that all he wanted to do when he made *El Mariachi* was to make enough money to make another film – he was not prepared for it to be successful, and I felt exactly like that.

NH: It was so time-consuming, it took everything out of you to work on that game, and it was tiring to think of the next game. You've got movie directors and sometimes they take years before they direct another movie.

THE LEGACY OF DUNGEON MASTER

EYE OF THE BEHOLDER

Westwood Studios' first-person epic had the official *Dungeons & Dragons* licence, and would go on to become possibly the most famous and enduring of all the games inspired by *Dungeon Master*. It also went on to be ported to the SNES and Game Boy Advance



DOUBLE DUNGEONS

A pretty dismal effort for NEC's beloved PC Engine console, *Double Dungeons* featured laughable graphics and slow, plodding action. However, regardless of the quality, it's proof that *Dungeon Master*'s influence could be felt all over the globe

BLOODWYCH

One of the earliest clones of FTL's game, *Bloodwych* was unique because it offered two-player cooperative mode, and also allowed the player to converse with almost every character in the entire game – including your enemies as you exchanged blows. Very immersive stuff.

SHINING IN THE DARKNESS

Hailed by many as a *Dungeon Master* beater upon its release, *Shining In The Darkness* isn't a real-time endeavour, and instead relies on the Japanese RPG staple of turn-based combat and random encounters. It's still well worth a look, however.

LANDS OF LORE

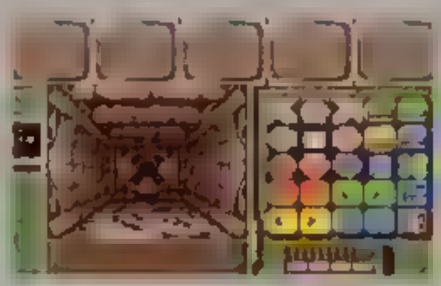
Westwood Studios' next project after losing the *Eye Of The Beholder* licence, *Lands of Lore* is one of the most accomplished first-person dungeon crawlers. The VGA visuals and excellent audio (Patrick Stewart lent his vocal talents to the CD version) made this a true classic.

ARCANA

Produced by HAL Laboratories – now a first-party Nintendo studio – Arcana is essentially a clone of Sega's *Shining In The Darkness*. However, it boasts better visuals, music, and has random encounters, making it a worthwhile purchase for fans of the genre.

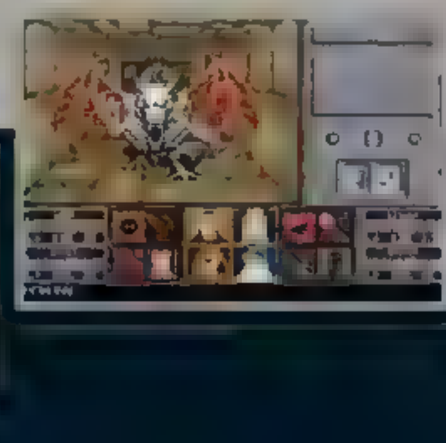
CAPTIVE

C64 legend Antony Crowther's take on the *Dungeon Master* concept was one of the few clones which attempted something new as well; it was set in the future, with the player remotely controlling a group of androids as you try to escape from a high tech prison.



BLACK CRYPT

Notable for being the first commercial release by Raven Games (*Heretic, Hexen*), *Black Crypt* is something of an underrated gem. It was unique for being one of the first games of this type to include an auto-mapping feature, accessed via a spell.

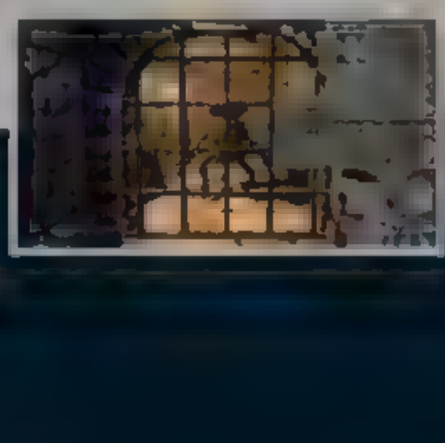


STONEKEEP

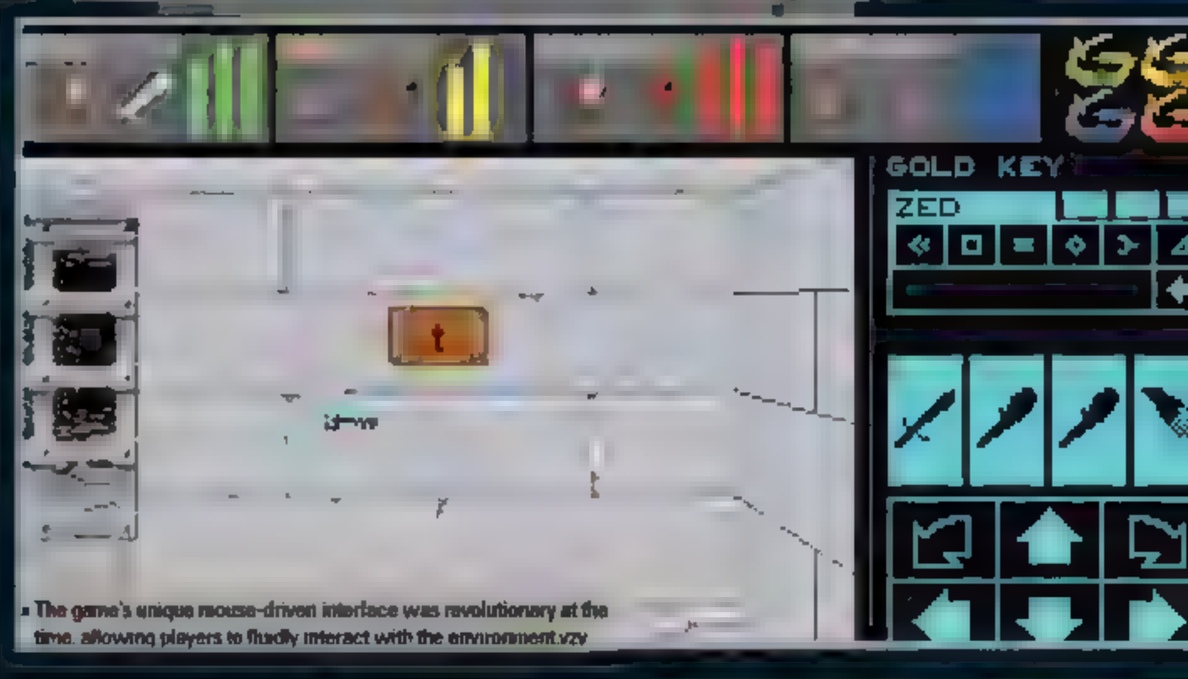
One of the grandest – and most critically derided – *Dungeon Master* clones, *Stonekeep* took five years to make and cost $5 million – a lot of which was spent on the CGI introduction sequence. Hindsight shows it's not a terrible game, but not the smash hit Interplay wanted.

LEGEND OF GRIMROCK

Described by developer Almost Human as a loving tribute to the original *Dungeon Master*, this recent release takes the core of FTL's game and gives it modern 3D graphics and improved presentation. This is what a modern take on *Dungeon Master* looks like.



Food and water are essential to survival, with your team needing both to regain health, stamina and mana.



The game's unique mouse-driven interface was revolutionary at the time, allowing players to fluidly interact with the environment.vzv

DB: And everyone wanted it six weeks later!

How does it feel to know that *Dungeon Master* is still an influence on people after all this time?

NH: I just went to the World Horror Convention and met author Guido Henkel there, and he mentioned that *Dungeon Master* had been an influence on his work, and it was really exciting to hear him say that to a room full of people. I went up afterwards and said 'You mean our *Dungeon Master*?' And he said 'Yes, it was your *Dungeon Master*!' I think it's very touching; we worked so hard on it, so it's nice to hear that it made a difference.

WH: I think in a certain sense we were a little bit too early; we kinda got lost behind games like *Doom*.

DB: Personally I feel honoured when people are still talking about *Dungeon Master*, but then on the other hand I look at people talking about the chronology of computer games and somehow we seem to be left out of a lot of those. It does not quite seem right.

Have you ever considered working on another sequel to *Dungeon Master*, with modern tech? How would you see a modern day *Dungeon Master* working out?

MN: These projects seem to be huge undertakings now; like the equivalent of making a film nowadays.

WH: I've worked in a software house since FTL disbanded and the one thing I've learned from that is that only a really small team can do a really good job.

NH: We could get the band back together? [laughs]

WH: I said earlier that one of the coolest things was just working with other people who were that smart. It sort of becomes effortless. I used to particularly remember watching Doug and Dennis, this weird kind of duo, you'd kind of read each other's minds and you'd pass these discs back and forth over your heads and you'd kinda know what was needed next; it was mesmerising to watch.

DB: To this day, in my never to be humble opinion, Dennis is the only software engineer that I will admit is better than I am. [laughter all round]

MN: That said, and to answer your question, the answer is no – no one wants to take on writing another sequel!

DB: Actually there's a series out now which I think has captured a lot of the spirit of *Dungeon Master*, and that's *Portal*, and *Portal 2*.

NH: Oh yeah, I know *Portal* – our daughter has played those.

DB: It's in a completely different setting, but it captured the spirit of *Dungeon Master*.

WH: I've watched our daughter playing *Minecraft* and I think there are a lot of similarities between that game and *Dungeon Master*. To me, of all the stuff I've looked at, that's one of the most similar.

***Dungeon Master* would work well on a touch screen. Have you considered doing a port for the iPhone or Android?**

WH: When the iPhone first came out I thought *Dungeon Master* might work on it, but you'd have to redesign the controls a lot to make it fit...

DB: Not too much. There was no dragging involved.

WH: I guess... And thanks to Doug we still have the source code. I also have Mike's Dungeon Constructor Set source code. The single biggest business mistake that I made was not realising that we should have sold the Dungeon Constructor Set as a separate product and let people create their own stuff. I was afraid it would dilute the whole cache, and that people would come up with tacky stuff, but people like to author stuff. We did it with *Oids* later, and that was a big hit.

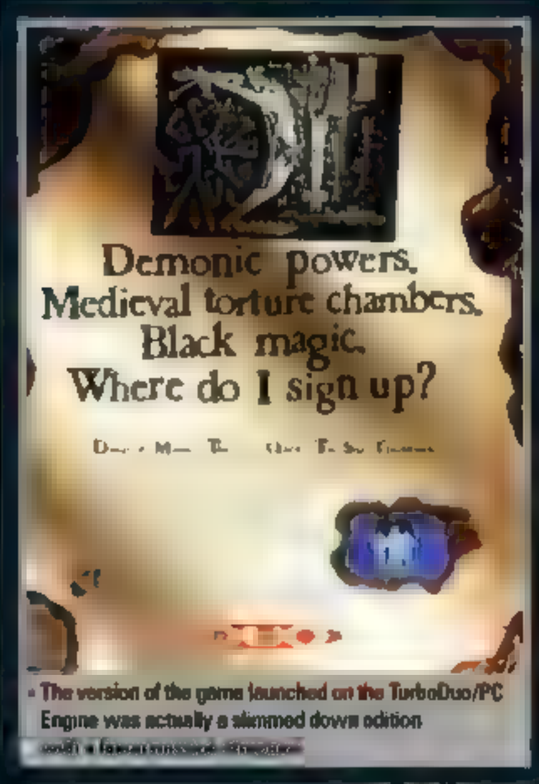
DB: People start sharing the levels and it keeps it alive.

WH: I also regret that we didn't consider seriously an online multiplayer mode, but the company had already disbanded by then.

MN: Online was analogous to Morse code then! Remember how many games we used to look at during development?

WH: I remember when we got visited and shown *Tetris*. I said it would never be a success!

DB: *Tetris* is a sore point for me, because the year we had *Dungeon Master* out there, and it was at the top of the charts, we were put up for the Software Publishers Association game of the year. We were one of six titles and we had all these amazing technological things we'd done and boundaries we'd pushed, and the game that won was *Tetris*, which was something you could execute in a weekend. I've never really quite recovered from that! It's been the bane of my life. I always pick complicated things to do and *Tetris* is a reminder that it doesn't have to be complicated as long as it's the right idea.



The version of the game launched on the TurboDuo/PC Engine was actually a slimmed down edition

HIGH SCORE: 51800

Black Lamp

HOW TO LOSE FRIENDS AND ALIENATE PEOPLE

» RETRO REVIVAL

• ATARI ST
• FIREBIRD
• 1984

Although *Black Lamp* came out on numerous 8 and 16-bit systems, I'll always associate it with the Atari ST. I can remember purposely making friends with a kid at school who was two years younger than I was, simply because his rich parents had bought him an Atari ST for his 13th birthday and I desperately wanted to play on one. Embarrassingly, I can't remember what he looked like or what his name even was, but I'll always remember *Black Lamp* because it put each and every one of my pathetic Amstrad games to shame.

Utterly resplendent thanks to its stunning visuals it looked like a cartoon come to life and was totally mesmerising to this wide-eyed 15 year-old. I'd sit there patiently listening to this annoying little kid's chatter, safe in the knowledge that very soon I'd be able to lose myself in the beautiful world of Allegoria and not have to concentrate on his annoying yammering. His parents soon cottoned on to the fact that we weren't really friends, and my days of playing *Black Lamp* and *Xenon 2* came to an abrupt end.

That wasn't the end of my relationship with Firebird's game, however, as I managed to pick up a machine and a copy of the game about ten years later. It was there that we parted ways, because even back in 1998 it was clear to see that *Black Lamp* would never be considered a classic of its time. Insanely tough and featuring amazingly stodgy controls, it was hard to believe that it was the same game I used to enjoy around whatshisname's house. Going back to it for the purpose of this article, my opinion hasn't changed at all.

Certain games will always belong to a specific time either because they remind you of a particular point in your youth or because it's obvious that they haven't aged well and that your mind would prefer to lock them away, happy with the memories of when they used to be the bee's knees. *Black Lamp* is the perfect example of this, and yet it was still a good three hours before I actually turned the damned thing off. Maybe I'm mellowing with age.

PLAYER ONE: 51800

PLAYER ONE UP.

ATARI ST: THE COMPLETE MANUAL

COMPANY PROFILE

ONE OF THE ORIGINAL PROMO PICS OF THE BITMAPS TO ENSNARE THE MEDIA'S ATTENTION. ERIC MATTHEWS LOOKS KIND OF LIKE SUGGS, EH?

CHAOS ENGINE HAD ALL THE HALLMARKS OF THE BITMAPS

COMPANY PROFILE - THE BITMAP BROTHERS

GODS (AMIGA) MIXED PLATFORMING AND ACTION TO GREAT EFFECT.

BITMAPPED BRILLIANCE

There's a reason the Amiga's operating system was called Workbench, but until 1987, there'd never been any craftsmen in position to create the works of technical majesty that the amazing computer was capable of. The industry was keeping such artisans out of sight, hidden beneath the workbench, unnamed and unknown. Then came the Bitmap Brothers to set the programmer free; brothers to all who laboured at the bench, and subordinate to no publisher. The rock stars of the programming world had risen...

» *The Chaos Engine* is one of the best run-and-guns on the Amiga, playing like a futuristic *Gauntlet*

If history has proven anything, it's that the subjugated will rise, the oppressed will push back and the little people aren't so little when their strength is marshalled. Not to suggest Steve Kelly, Eric Matthews and Mike Montgomery are little, of course, but certainly they suffered under the harsh regime of a publisher-run software industry for many a long year before becoming the standard bearers for a new age of game developer recognition.

LOVE TRIANGLE

But these uprisings take planning, and the seeds of rebellion must be planted by a few brave souls who are willing to challenge the status quo and go it alone. In the case of the Bitmap Brothers, it was a prophetic triangle of professional collaboration that brought the future renegades together and made them more than just working acquaintances.

Before board game conversion obsessed Leisure Genius was bought out by Virgin Games, it employed one Mike Montgomery as its marketing director. At the time, the Spectrum was a reigning contender for the 8-bit crown and Leisure Genius was eager to complete its digital board game catalogue by including Scrabble; previously licensed and published by Sinclair Research itself. The game had been written by Steve Kelly of Psion Publishing (a beloved bed partner of Sinclair Research), and he paid several visits to Leisure Genius to help with the game's re-release.

Both men had also worked with a third programmer, Eric Matthews, in 1986 on a cross-corporate project to convert Kelly's Sinclair QL beat-'em-up, *QL Karate*, to the Amiga and Atari ST. Despite receiving decent reviews, the promotion of the game was severely limited; a matter that served only to compound the rising disenchantment that had been building – quite independently – in the three coders for several years. It didn't take long before they became friends as well as colleagues, and their thoughts on the direction of the computer-game industry began to mingle.

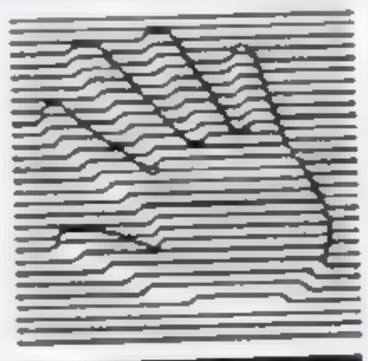
It quickly became apparent that Mike, Steve and Eric shared a common notion. Each felt it thoroughly inequitable how the computer and videogame industry was entirely publisher orientated. When gamers bought the latest titles, it was the publisher's name that was brandished brazenly on the box art, with the development company receiving second billing (often in the case of a footnote on the back of the inlay), while programmers went completely unacknowledged, as Mike Montgomery explains to us.

"At the time, the publishers got all the credit. You didn't go to a shop to buy an Apple record; you went to buy a record by the Beatles! When you bought a film, your decision wasn't based on the distributor, so why would people buy games that way? In many respects, it was a case of bad promotion since the publisher's label didn't really reflect the kind of content a gamer could expect. We wanted to change all that."

It became the founding goal of their new partnership to rectify the way a game was delivered to the public, and the Bitmap Brothers became the first game developer to not only recognise its creative teams, but to actively promote them. This extra dimension of freedom and public tribute would result in some of the finest and most critically acclaimed 16-bit games ever seen, but even a creative powerhouse armed with a barrow full of vision had to face exactly the same challenges of any new business under an overfed Tory regime.

IN BRIEF

There are many reasons we'll remember the Bitmap Brothers and why its name will always carry weight with gamers, but the real reason the industry will ensure Bitmap retains its position on the highest pedestal is its promotion of the programmer as the driving force behind great games



FINEST HOUR

While it might usually be possible to mark a company's crowning achievement, the nature and purpose of the Bitmap Brothers makes this something of a dichotomy. While *Speedball 2* is ultimately the game most synonymous with Bitmap's achievements, the sheer enormity and latent commerciality of *Z* really shouldn't be overlooked

» There was a special edition of *Z* called *Z Platinum*. It comes in a big black box containing two CD-ROM (*Z* and the 'Directors Cut'-Demo), a mouse pad, a pin, a key chain and a cool black T-shirt (Size XL).

» Magic Pockets saw the Bitmap Bros tackle the platform genre. It was memorable for its instrumental version of Betty Boo's *"Doin' The Do"*

» *Xenon 2 Megablast* was an insanely good shooter and a huge improvement over the original game

» A stylish, if cryptic, advert for Bitmap's first games compilation. Lots of style, just the way the Brothers liked it

BUILDING THE BITMAP

The trio's founding philosophy of energetically promoting the developers required a careful choice of name. The natural inclination to begin their reign as rock star developers was to choose a cryptic, masculine name that wouldn't look out of place in the thriving acid-house music charts of the time. But the lad's keen understanding of the necessity of intelligent media exposure kept them from succumbing to superficial indulgences, choosing instead a relevant, iconographic and enduring designation.

"Bitmap" was a well known computing phrase of the late-Eighties which carried with it the strong graphical connotations the team intended (and succeeded in) infusing its games with, while the term "Brothers" cleverly suggested the collaborative, dynastic structure the company was born into; waving a flag of defiance at the stifling industry it was breaking away from while embracing its creative brethren. The simple fact that the name Bitmap Brothers trips lightly off the tongue 20 years later and still carries with it an imposing subtext of gaming excellence is testament to the importance of a well chosen name.

Leaving their respective companies in 1987, the soon-to-be Brothers moved cautiously toward the development of their next generation games. Working from home, each team member set themselves a goal and kept in touch with the rest of the team by way of an occasional phone call and, more specifically, at a weekly meeting in a London pub (followed by a lashed-up trip to the arcades), where progress would be updated and new goals set. A workable, if slightly disjointed method of operation, but certainly one of the only ways a start-up business in such a volatile, fickle industry could possibly begin.

It wasn't until after the team's first game was finished that they decided productivity would be best served with company premises, and a studio in Wapping, East London, was established. The Bitmap team was confident in its launch product, but had yet to realise its founding principle of placing a well-promoted programming face alongside any game releases, in order to get the company's image off on the right path and immediately establish the profound public visage it knew would be vital to future titles. All this cost money and, for almost a year, there was none coming in.

"Getting an office was great and speeded up the whole process of writing games, but money is always at the top of the problem list," says Mike, recalling the embryonic days of the company he still owns and operates. "At first, this meant working for months without pay, and then when you start employing people you have to pay them out of your own pocket. It takes a lot of effort to get a game off the ground before you can get a publisher to fund it, and when you're a new entity it's even harder to get the money men on your side."

"So one of the first things we did was to employ a PR person to promote us as a development team. We had some great photo shots made, which worked really well as all the magazines loved the style and were desperate to use them. All the hype surrounding us was carefully planned," Mike explains.

Indeed, the magazines of the day didn't really know what to make of this new and high-profile developer. And yet they didn't care; easy-to-acquire coverage of programmers wearing cool dude shades, in dramatic black-and-white photos and posing as if for an album cover looked great in the pages of a magazine, making the Bitmap Brothers a valuable media commodity before any games had even been released.

Naturally, all this hype demanded a game that was equal to the modish countenance the three hackers were portraying, and when it arrived in at the start of 1988, the magazines were reassured that their journalistic sponsorship had been justified.

PROGRAMMER AND PROUD

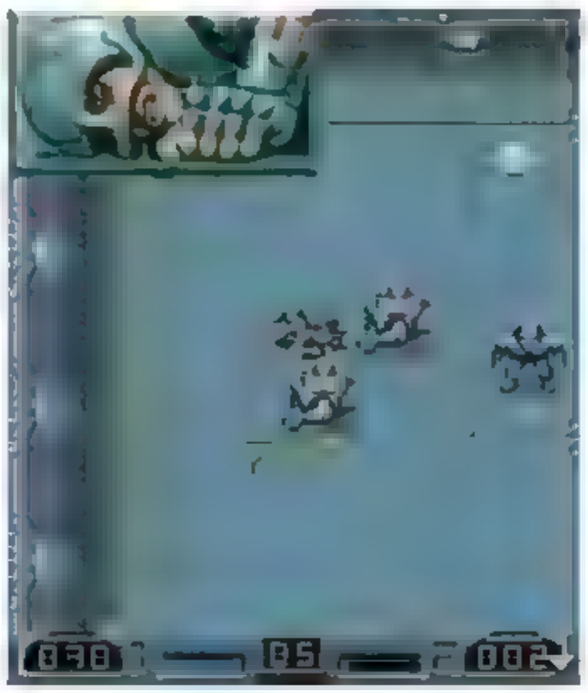
Originally titled *Kelly X* (which was changed to *Xenon* after an Atari ST beta preview was rumoured to have leaked

SPEEDBALL 2

Although it's now the most valuable of the Bitmap Brothers' IPs, *Speedball* got off to a shaky start. After a commissioned concept for a tennis game was rejected, the Brothers hit the pub, as Mike recalls

"We went down the pub to drown our sorrows, but we all felt the concept could really go somewhere with a few changes. The only paper we had at the time was a cigarette packet, which we sketched out the concept of *Speedball* on. We took it to a publisher who signed it there and then."

It wasn't until the sequel to this massively popular game that the concept's possibilities were really unlocked. *Speedball 2 Brutal Deluxe* has been the Bitmaps' most prolific title, being converted to over 15 different formats. Its most recent ports include versions for Xbox 360 (which was sadly removed from Xbox Live Arcade in 2009) iOS and, more recently, PC. Interestingly, Amiga legend, Jon Hare, worked on both the iOS and PC versions, meaning two of the greatest Amiga sports games of all time are now linked. A highly useful fact if you ever play a videogame version of "Six degrees of Kevin Bacon..."



» A pixel-perfect version of *Speedball 2* was released (under Mike's watchful eye) for the Pocket PC. The elongated screen suits the game perfectly, and is well worth a visit

"THE BITMAP BROTHERS BECAME THE FIRST GAME DEVELOPER TO NOT ONLY RECOGNISE ITS CREATIVE TEAMS, BUT TO ACTIVELY PROMOTE THEM"

▸ The wicked acid-house musician Tim Simenon (AKA Bomb the Bass) lent his talents and tunes to *Xenon 2*, helping to create something of a landmark in Amiga history

from Mastertronic), the Bitmap Brothers' first game was a complete critical and commercial success.

In many respects, *Xenon* was a typical shoot-'em-up, but so many of the standard fare elements of the genre had been tweaked that it was hard to find the right pigeon hole for it. Rather than the established, linear scrolling and forced direction normally associated with shooters, *Xenon* allowed for a free-roaming existence. Alternating between a ship and a tank helped infuse a pseudo 3D depth to the birds-eye-view game; punters loved it, while magazines touted it as the "first home coin-op" (*Computer And Video Games* #77, March 1988).

In truth, time has been harsh to *Xenon*, and it takes a sincere refresher course in early Amiga history to remember the significant, and justified, impact the game had. *Xenon* demonstrated the true arcade gaming capabilities of the wonderful 16-bit machine and also the significance of the still new and overlooked Amiga market. It was also the first Amiga game to make it into the all-format top 40 charts.

The smooth scrolling, awesome sound and fast gameplay fooled more than a few reviewers of the day into thinking this was a coin-op conversion. *The Games Machine* (in April '88) gave *Xenon* an impressive 88% while reporting it as publisher Melbourne House's second successful port from the Amiga-based Arcadia coin-op boards. In fact, the Arcadia coin-op version was a port of the Amiga home game; a testament to just how refined and influential the Bitmap Brothers' debut title was, even if time has tamed it for the modern gamer. Mike Montgomery even had a recent run-in with his game's arcade counterpart when out one night. "*Xenon* was converted to coin-op very early on and was really successful. A few years ago I actually found one in a pub. It was great playing it in front of my drinking pals all those years later," he laughs.

The 12 months of tenuous, difficult and financially straining development paid off almost overnight, and the devilishly well-played media game ensured the Bitmap Brothers received the accolade and recognition it had set out to achieve. As with all successes, the major obstacle immediately faced is bettering such a high-profile accomplishment, and the media (and, indeed, the gamers), had instantaneously astronomical expectations of this new developer.

A publisher had already asked to see a design for a tennis game, which the Bitmaps researched and developed while working on *Xenon*. When it came to presenting the game design, however, the publisher had changed its mind and brought the Brothers' second – and fully funded – development to a complete halt. A few hours drowning sorrows down the pub changed their minds on abandoning the significant amount of research so quickly and, with the help of renowned graphic artist Mark Coleman, they redeveloped the idea into a futuristic sports simulation called *Speedball*.

One thing the Bitmap Brothers could never be accused of is repetition, since the release of each game saw it take on another genre and win, and yet the publicity machine was always running full pelt. Despite being a futuristic sports game, the second title to come from the Brothers (released in late 1988) was consistently compared to *Xenon*, which, in all fairness, verges on the ludicrous. The two games couldn't have been more different, and yet the developer had woven so many subtle (and not-so-subtle) nuances throughout both games to the point at which they did indeed cross over, making comparisons bizarrely reasonable.

The slick metallic sheen, beautifully refined graphics and liquid-smooth scrolling became the signatures of a Bitmap game, with no other developer coming close to achieving such a recognisable cult status during the entire life of the 16-bit generation of machines. But there was one area where the Bitmap team hadn't reached its full potential, and it was a gap it fully acknowledged and intended to bridge in its next game, as Steve Kelly told *ST Format magazine* shortly after the release of *Speedball*.

"Just solving the problems that occur [while] writing a game makes it all worthwhile. For instance, we set ourselves the goal of making *Speedball* faster than *Xenon*, producing big images on the screen while still ensuring the program runs smoothly. We have some of the best graphics artists around. At the moment we feel we cannot improve dramatically on our graphics or programming, but we need to concentrate on the weakest element – sound."

HIP HOP ON PRECINCT B

In 1989, the Brothers had reached full swing and was planning for a future designed by its own team of artists, prophesised by its programming oracles and, after its next game, remembered by the song of its own techno-sirens.

A sequel to the debut game was planned by the Bitmaps, then passed to one of the few development teams who'd shown a similar talent for the smooth scrolling and attention to detail that had become synonymous with the Brothers; The Assembly Line. *Xenon 2: Megablast* was a sequel in name only, adopting a more established shoot-'em-up style (automated, single-direction vertical scrolling, although the direction can be reversed a short space) alongside the trademark Bitmap Brothers visuals.

If it was possible to ignore the eye-blisteringly vivid, stunningly Giger-esque

Z

While *Speedball 2* has sold more units across many, many platforms, Bitmap's real-time strategy game *Z* is its best seller on a single machine.

More than four years in the making (explaining the apparent absence of the Bitmap Brothers after *The Chaos Engine* projects), Mike explains the enormity of the undertaking.

"While we were in the process of writing it, CD-ROM began to take over as the format of choice for PC so we had to change lots of things, and go back through to add lots of cut-scenes. It was almost like starting the project all over again when we were halfway through. It took so long to write and cost so much to develop, but it was worth it as it sold the most of all our games."

One of the first RTS games to demonstrate the importance of a carefully balanced AI and a simple learning curve, this is one of the great under-appreciated titles of the last decade

ONE OF THE FOUNDING BROTHERS OF BITMAP, MIKE MONTGOMERY STILL LOOKS AFTER THE COMPANY'S IPS, INCLUDING THE NEW SPEEDBALL 2 GAME.

STEVE KELLY AND ERIC MATTHEWS AT THE BITMAP BROTHERS STAND AT A GERMAN COMPUTER FAIR IN 1989

» The Bitmaps publishing label, Renegade, was a joint venture with Rhythm King Records

AVOID LIKE THE PLAGUE

Equally difficult to place, even the lesser Bitmap games were infused with such detail and enthusiasm they overshadowed the competition without effort. Perhaps, then, we should mark down *Magic Pockets* for its rather vulgar Saturday morning prostitution on *Going Live!*

graphics, playing *Megablast* with the sound turned down would yield a pretty average twitch shooter experience. Of course, it's utterly impossible to ignore that incredible imagery, and the sound changed the way people listened to their home computers forever.

Teaming up with record label Rhythm King – who shared a distinctly similar philosophy when it came to artist recognition – one of its most successful bands was drafted in to help recreate a recent chart hit of the same name as the Bitmap's new sequel. Bomb the Bass's Tim Simenon worked with Eric Matthews and computer musician David Whittaker to recreate the acid-house classic on the Amiga that proved so popular.

The result was one of the finest and most revered recreations of a genuine chart hit ever heard on a home computer, with a near perfect rendition of Bomb the Bass's *Megablast* playing during the title screen. A reduced, yet recognisable and invigorating version provided background music during gameplay.

With the one gap in the Bitmap Brothers' arsenal now filled, the reviews of *Xenon 2: Megablast* were resoundingly congratulatory. Yet this partnership between the music and games industries was to have far further reaching repercussions than impressively high review scores. It would lead to a partnership that would reinvent the Bitmap Brothers into the kind of leading powerhouse capable of fully realising the industry changes that the founders had strived for since the beginning.

THE RENEGADES

Although the Bitmaps had entered into multiple game deals with Mirrorsoft (who released several Bitmap games under its Image Works label), the publisher had always acknowledged that a team like the Bitmaps wouldn't remain confined to one distribution network for long. When the head of Rhythm King Records, Martin Heath (an avid gamer who'd jumped at the chance to get involved with *Xenon 2*), met Eric Matthews, he learned a great deal about the state of the industry and fully identified with the Bitmaps' vision of setting the programmer free.

In 1990, they joined forces and founded Renegade Software to publish the Bitmap Brothers' games and accept new material from other independent developers with the promise of placing the development teams at the fore of any promotion. In an interview with *ST Format*, Heath revealed all about his concept and what he thought of the software industry as a whole.

"It became apparent when I first met Eric that he wasn't too pleased with his

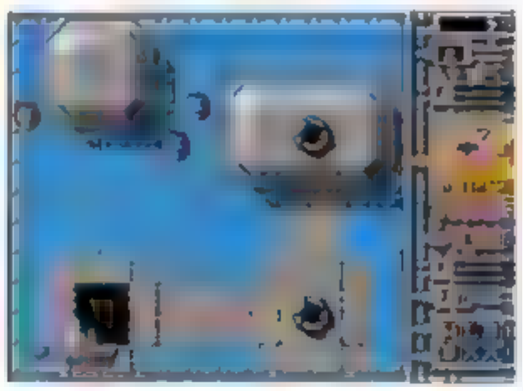
THE GAMES OF BITMAP

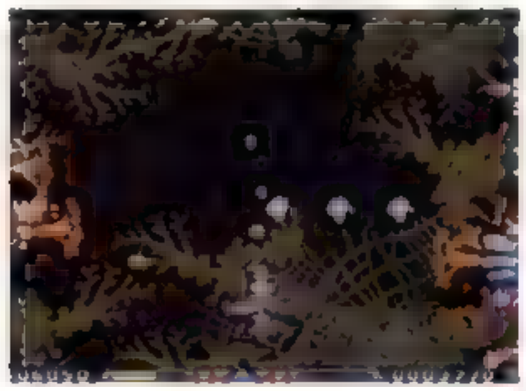
XENON
» The debut game from the Bitmaps that paved the way for a new age in gaming. Switching between a top-down racer and standard fare shoot-em-up, *Xenon* went down a storm with punters and critics alike

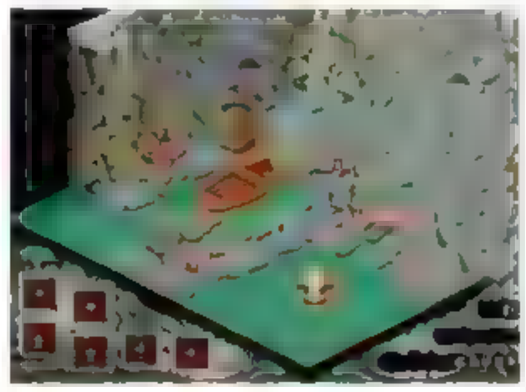
SPEEDBALL
» To think this was almost a girly tennis simulator. *Speedball* combined football with *Rollerball* and reminded gamers that playing by the rules was actually a lot less fun than injuring opponents and bribing officials

XENON 2: MEGABLAST
» Packed with so much detail it could make your eyes bleed, it's difficult to know what the best aspect of this rather gorgeous sequel is: the outstanding graphics or the incredible acid house soundtrack

CADAVER
» Isometric games used to be a lot more fun than they are now, but still *Cadaver* holds its own with fans of the adventure genre; plundering depths of interaction that few, if any, 16-bit iso-explorers were able to manage





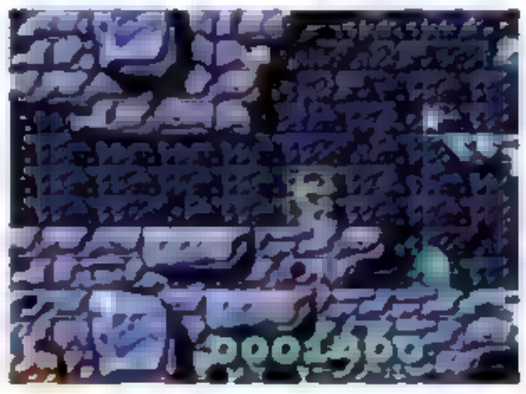


GODS
» Although Hercules seems a little impotent in this platformer incarnation, the dazzlingly clean graphics make *Gods* a very welcome addition to the genre. The fact that there's no music (which, after *Megablast*, is almost unforgivable) is a kick in the nuts, though

SPEEDBALL 2: BRUTAL DELUXE
» For many, *Brutal Deluxe* is the pinnacle of not just the Bitmap Brothers catalogue, but computer and videogaming in general. A much larger pitch, twice the violence and triple the thrills, *Speedball 2* is the best game made by anyone ever

MAGIC POCKETS
» Featuring the musical "talents" of Betty Boo (*Doin' The Do* – sheesh), this good looking platform game was robbed of credibility when it was featured as a phone-in game ("Up! No, I mean down! Err... left!") on *Going Live!* How the mighty fall

THE CHAOS ENGINE
» Getting right back on track, *The Chaos Engine* was a welcome return to Bitmap greatness. Featuring two-player, top-down *Ikari Warriors*-style action, the rich storyline and extravagant characters helped create a tough but genuine classic



▸ *The Chaos Engine* characters oozed charisma, although the US version had the Preacher changed to a scientist in order to avoid any controversy

publisher. Programmers are being treated as if they're idiots. I met some publishers, and most of the people running these companies are businessmen with nothing else to do but use their ability to make money. They're sympathetic to the programmers, but the decisions they make are often faulty. It was decided, as

"THE PARTNERSHIP BETWEEN MUSIC AND GAMES LED TO THE BITMAP BROTHERS' REINVENTION"

with Rhythm King Records, that the artists should get their just reward." Another like-minded visionary who was out to change the games world then, and for a while, they certainly did.

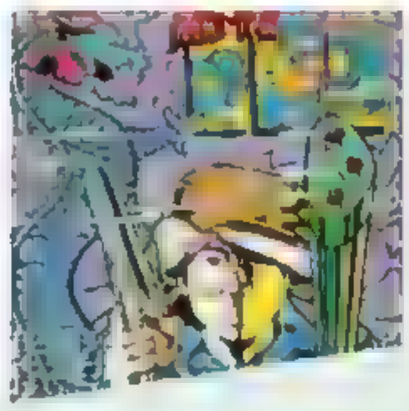
The Bitmaps' own game, *Gods*, was the first title released under the Renegade label, soon followed by classics such as *Sensible Soccer*, *Fire & Ice*, *The Chaos Engine* and *Z*. Renegade continued to publish and promote developers until 1995 when it was bought out by Warner Interactive. Warner continued to use the label until 1997 when it was sold off to GT Interactive, and the Renegade name was regrettably discontinued.

EXTENDED FAMILY

The Bitmap name is still synonymous with the highest quality of videogames, and despite restructuring, the Bitmap Brothers is still under the watchful eye of Mike Montgomery, and the wealth of creative material continues to be put to good use. "I still run the Bitmap Brothers, but with a much smaller team looking at various formats for my IPs", he tells us. "*Speedball 2* for Xbox Live Arcade was done together with John Phillips and Mark Coleman, both long-time Bitmaps, and we have more games in the pipeline." Here's hoping *Xenon 2: Megablast* receives similar treatment in the future...

MEGABLAST

A testament to the dedication of the Bitmaps was their willingness and ability to uncover the chinks in the company's own armour, and when it was time for a sequel to their debut game, the lads knew the music had to be exemplary. To that end, they sought out the help of professional electronic musician Tim Simenon of Bomb the Bass (this writer's favourite band of all time, incidentally). His recent chart hit *Megablast* (from the awesome *Into The Dragon* album) was the perfect accompaniment to the space-based shooter, although the musician was no stranger to computer music after he'd used a C64 as a sequencer for Bomb the Bass's outstanding debut number one acid house hit, *Beat 'Dis*. While the tenuous Betty Boo connection to *Magic Pockets* wasn't quite the follow-up gamers or house music fans were looking for, the fact remains that Bomb the Bass and the Amiga are now connected for ever more



THE CHAOS ENGINE 2

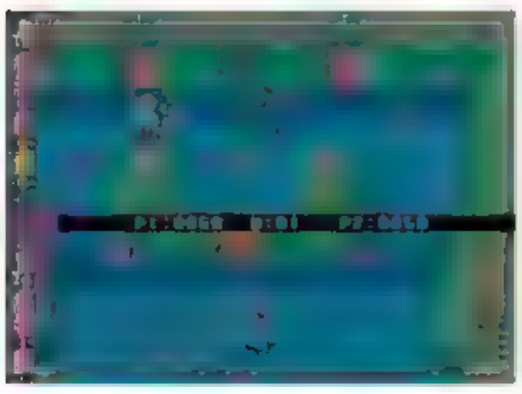
» Requiring something of a souped-up Amiga, *The Chaos Engine 2* f[illegible]ed in a few blanks from the original, by splitting the screen horizontally to allow more freedom for the two players and bolstering up the graphics as well as the action. Nice

Z

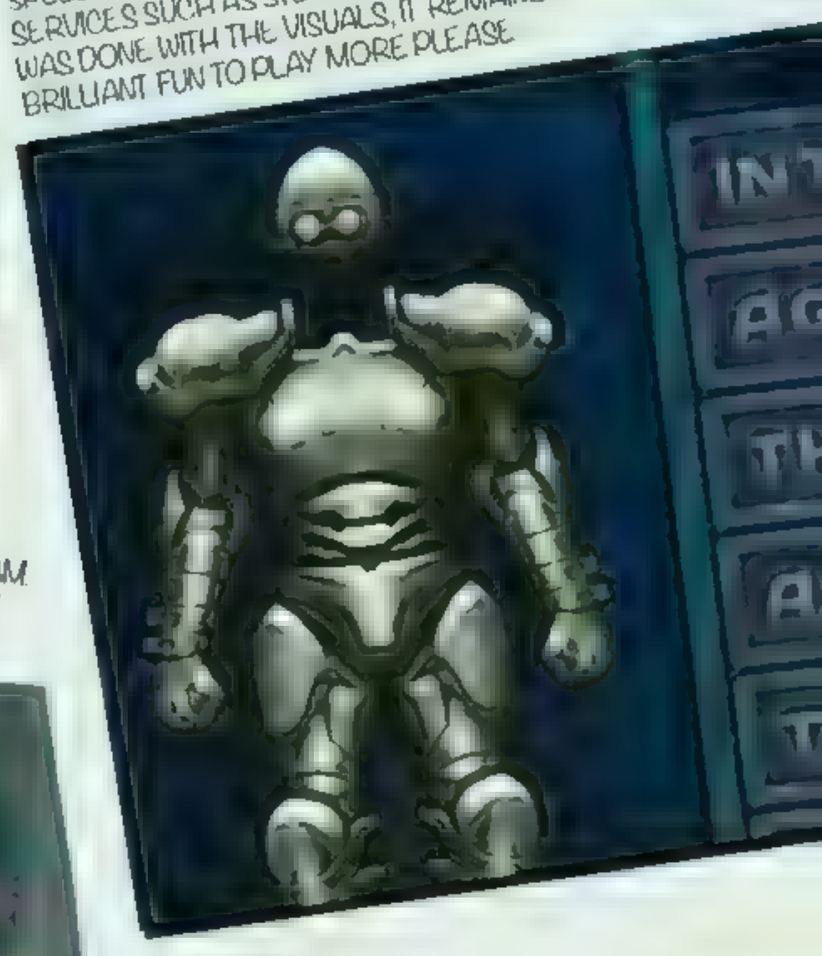
» This ambitious game was over four years in the making. *Z* features a war between red and blue robots. Not only a perfect introduction to RTS (due to the ease of adoption), *Z* also appealed massively to fans of the genre with its intricate strategy and well-balanced AI

SPEEDBALL 2100

» An unfortunate part of the *Speedball* lineage, an attempt was made to make the franchise 3D on the popular PlayStation console, but the lack of speed and coarse graphics robbed this awesome game of its beauty



SPEEDBALL 2 HD WAS RELEASED ON ONLINE SERVICES SUCH AS STEAM. WHILE LITTLE WAS DONE WITH THE VISUALS, IT REMAINS BRILLIANT FUN TO PLAY. MORE PLEASE



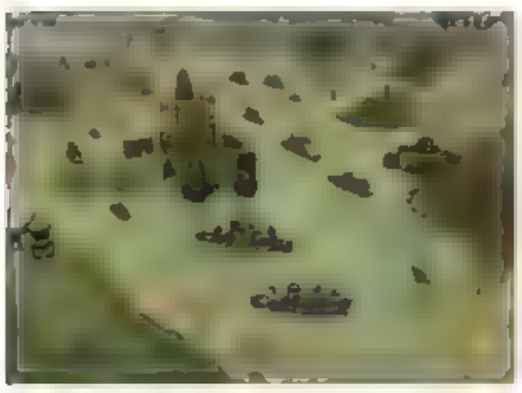
Z2: STEEL SOLDIERS

» A 3D sequel to the original RTS, *Steel Soldiers* is not without its fans, although its unfortunate arrival between hardware generations leaves it a little lacking. Still available and very playable, it's certainly a collector's item and well worth a couple of hours.

WORLD WAR II: FRONTLINE COMMAND

» This tactical war simulator featuring the events of D-Day proves how much the Brothers team learnt during its previous jaunts into the third dimension. Some beautiful environments adorn the game, though, without any Bitmap trademarks. Well received, if a little dry

THE CHAOS ENGINE WAS RECENTLY RELEASED ON STEAM. SADLY, WE'RE NOT BIG FANS OF THE NEW VISUALS.



THE MAKING OF

CARRIER COMMAND

Richard Hewlson talks to Ian Oliver from Realtime Games and Gary Sheinwald and Ricardo Pinto from Rainbird Software about how they made the original, futuristic seafaring 3D arcade and strategy game, Carrier Command

IN THE KNOW

- **PUBLISHER:** RAINBIRD
- **DEVELOPER:** REALTIME GAMES
- **RELEASED:** 1988
- **PLATFORM:** AMIGA, ATARI ST, PC, AMSTRAD CPC, ZX SPECTRUM, COMMODORE 64, APPLE MACINTOSH
- **GENRE:** SIMULATION

"I was young and foolish and clearly thought that anything was possible!"

IAN OLIVER

3D Tank Duel, 3D Starstrike and *Starstrike II* were all high profile 8-bit 3D titles that put Realtime Games on the gaming map in the mid-Eighties. Co-founders Andy Onions, Graeme Baird and Ian Oliver had met whilst studying a Computer Science Degree at Leeds University, as Ian explains. "We were very different people, but we had one thing in common. The University wasn't quite sure what to make of us, and vice versa!"

The three graduates ended up writing *3D Tank Duel* during their final year, a game that was heavily inspired by Atari's *Battlezone* coin-op. They published the game in early 1984, netting over £21,000, which was a fortune back then. "That made writing further games a no-brainer!" recalls Ian happily. Realtime quickly became far more proficient at coding for the Z80, and as a result, its second game came together in just a few months.

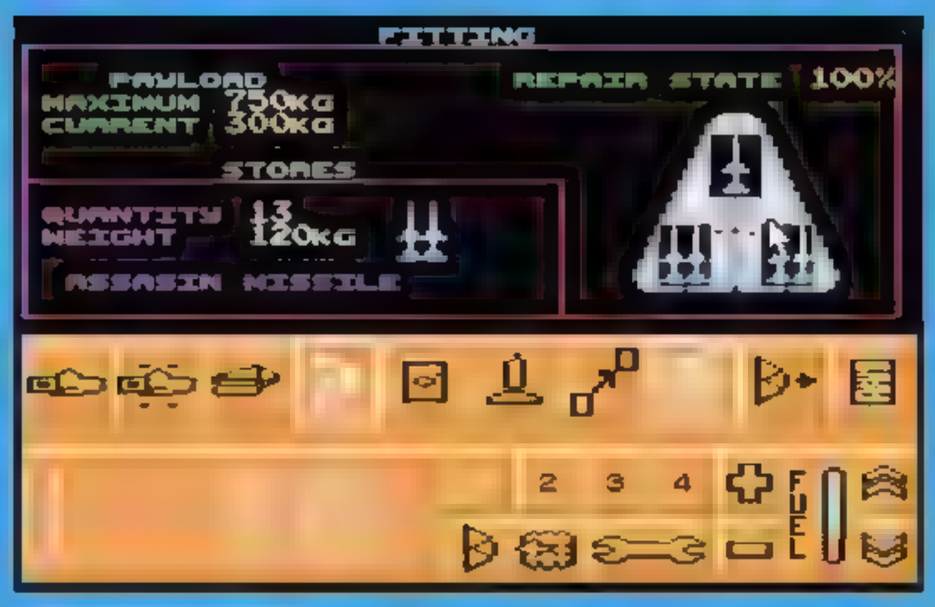
"*3D Starstrike* for the Spectrum and Amstrad CPC sold 55,000 copies and we made four pounds per copy. Life was good!" says Ian fondly, recalling their Atari *Star Wars* coin-op inspired 3D arcade blaster. A few months later, work began on the inevitable sequel. *Starstrike II* used shaded polygon 3D, which was a technique still in its infancy. However, after being inspired by two Atari 3D vector coin-ops for their first two offerings, Realtime had an epiphany with the sequel.

"It was then that we discovered cloning an existing game was a lot easier than creating one from scratch!" admits Ian. The result was that *Starstrike II* was finished extremely late. So late that when it finally pushed the Spectrum version out of the door, it realised that the UK games industry had changed. Distributors, publishers and developers alike were forced into becoming more professional as the market matured. Unfortunately, Realtime had failed to enlighten the press or the distributors about its *Starstrike* sequel until it was almost finished, resulting in a severe lack of reviews and sales when they needed the revenue most. "*Crash* magazine gave us a cracking review, and the smaller distributors and retailers were still a significant part of the market, but it didn't set the world alight," recalls Ian sadly.

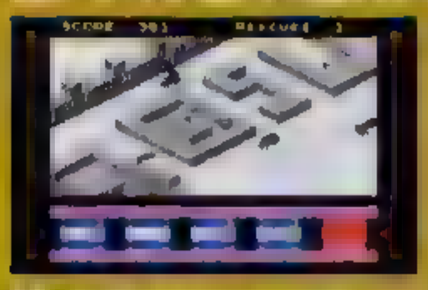
Just when things were starting to get tight, Realtime received a phone call from BT-owned Rainbird Software that was to forever change its fortunes. "Rainbird wanted to discuss Z80 ports of Jez San's *Starglider*," says Ian. "But one thing lead to another. Suddenly we had a publisher and they even stepped in to publish the Amstrad CPC version of *Starstrike II*."

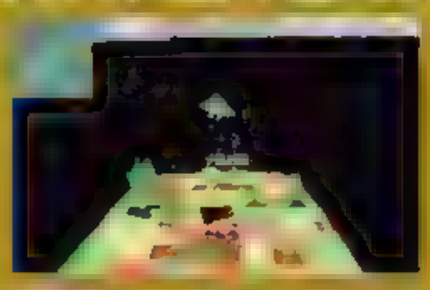
That deal lifted some of the pressure and the advance payments from Rainbird gave Realtime the chance to buy some better development tools in the form of the Programmer's

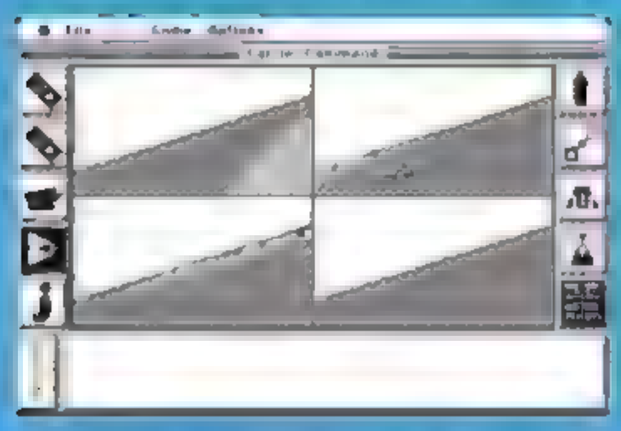
THE MAKING OF



DRAWBACKS TO OTHER GAMES THAT DEFIED 3D





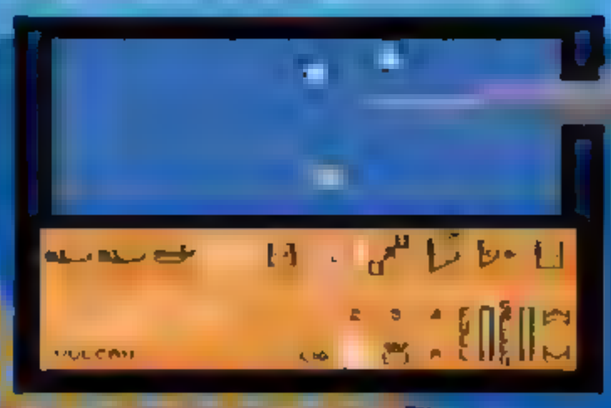


Rainbird could have got awkward but it didn't, far from it

IAN OLIVER

THE MAKING OF

I remember asking them to change the colours of the game since almost everything in it was black or very dark



DEVELOPER HIGHLIGHTS

3D TANK DUEL (PICTURED)
SYSTEM: SPECTRUM
YEAR: 1984

3D STARSTRIKE
SYSTEM: SPECTRUM, AMSTRAD
YEAR: 1984

BATTLE COMMAND
SYSTEM: SPECTRUM, AMSTRAD, AMIGA, ATARI ST, PC, C64
YEAR: 1990

DOGFIGHT BATTLES

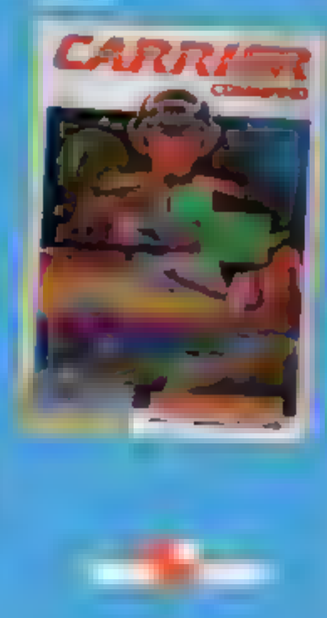
marketing and management folks felt that people wouldn't be able to pronounce the name, or know what it meant, so I lost that battle," admits Gary Sheinwald. "We wrote all the possible names up on a whiteboard and we had a vote. *Carrier Command* won, just beating out the similar *Carrier Commander*." Ian also remembers the discussions: "Rainbird came up with a few. We told them we hated the more zany names, and *Carrier Command* emerged as a consensus. It's down-to-earth description of what you actually do in a game that always appealed to simple engineers like me."

Near the end, Gary decamped up north to ensure that *Carrier Command* set sail on time. "I spent the last week holed up in a hotel in Leeds, tuning the gameplay as we rushed to get it out in time," remembers Gary. Thankfully, they did manage it although not without a bit of last minute judging to the enemy carrier's AI code. "Hence the ACC Omega warping around and cheating a bit too much, simply because we ran out of time!" explains Gary with a hint of regret. Ian also remembers the problems they faced with the game's arch nemesis: "In the initial ST release, the enemy carrier had a habit of driving onto the islands, which was a bit embarrassing!"

Thankfully, Ian got a chance to improve the ACC Omega's AI routines in the later Mac and PC versions, writing an additional 5000 lines of code, but by then Rainbird had been sold by BT to MicroProse (UK) and its treatment of *Carrier Command* didn't impress the guys at Realtime at all. "MicroProse inherited most of Rainbird's existing games, and then did a truly shoddy job of publishing them, which was deeply disappointing and a major blow. The royalties from other versions only just cleared the advances and we were relying on future royalties to dig us out of our financial hole."

A Commodore 64 conversion was added to the original agreement to replace the cancelled *PCW* version, and this was farmed out to C64 experts Source, who implemented a 2D sprite-based top-down view, which – in hindsight – was less than successful, leading to a disappointing game. "The last version of *Carrier Command* developed by Realtime was for the Apple Macintosh. It was an all monochrome affair, and they ended up writing it twice.

"That version was scrapped once we learnt more about how the Mac OS actually worked!" reveals Ian. "The second Mac version ran as an officially legal Mac OS program, running in a window, using desktop gadgets, multifinder and all the usual Mac menus and options. They even got the game running on the Mac 2 once they removed a small amount of self-



modifying code. That version wasn't strictly 100% legal as far as Apple was concerned, as it fudged a few things to get over some last-minute technical hitches.

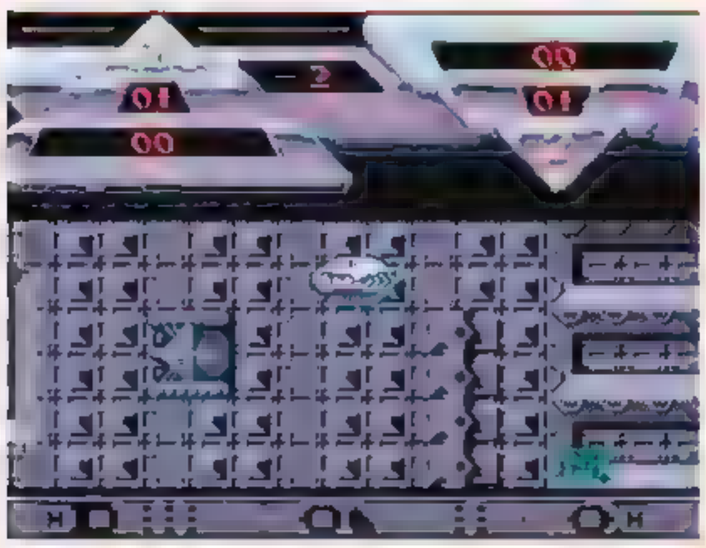
The Mac version was written on a PC using SNASM, which was a suite of development tools designed specifically by Ian to replace Realtime's reliance on PDS. Its development was sub-contracted and an entirely new company called Cross Products Ltd was set up to support it. SNASM went on to be used by a number of other developers and publishers over the next three or four years.

Ian Oliver has bittersweet memories of *Carrier Command*, as it represents both the peak and the beginning of the end for Realtime Games. "The ST version got some cracking reviews, and we were all very proud of it, but it wasn't without its flaws," admits Ian. "The brave new world of the games industry in the Nineties demanded a high level of glitz, as only the hype-fuelled hits made any money, and we just weren't financially sound enough to grow our team to a size where we could compete. While we did some solid work, including both ports and original product, we produced nothing that even came close to *Carrier Command*."

The game itself has lived long in the memories of those who wrote it, published it, bought and played it. So much so that a new generation of players are still experiencing it, with the recent publication of *Carrier Command: Gaea Mission* for the PC, and continues to enthral gamers worldwide.

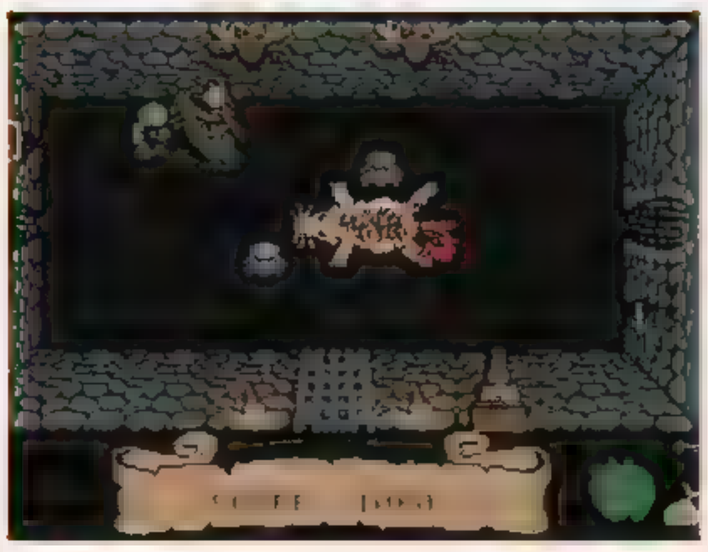
Minority Report

LETHAL XCESS: WINGS OF DEATH II



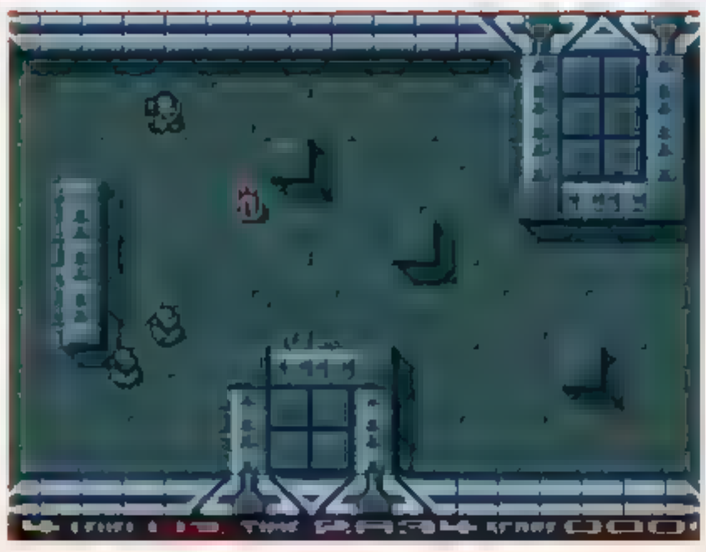
» RETURN TO GENESIS

■ **Steve Bak's *Return*** *To Genesis* started off life as nothing more than a technical demo to prove that the Atari ST could do fast and smooth multi-level horizontal scrolling. The story goes that Firebird was so impressed with what it saw that it commissioned Steve to turn it into a full game and this is what he came up with – a title that owes much to Hewson's classic *Uridium* with elements of *Defender* thrown in too. You fly over a vast space station in your ship bravely trying to rescue a bunch of scientists who are trapped there. The most unique feature about *Return To Genesis* is the barriers that you can't fly over and simply bounce off



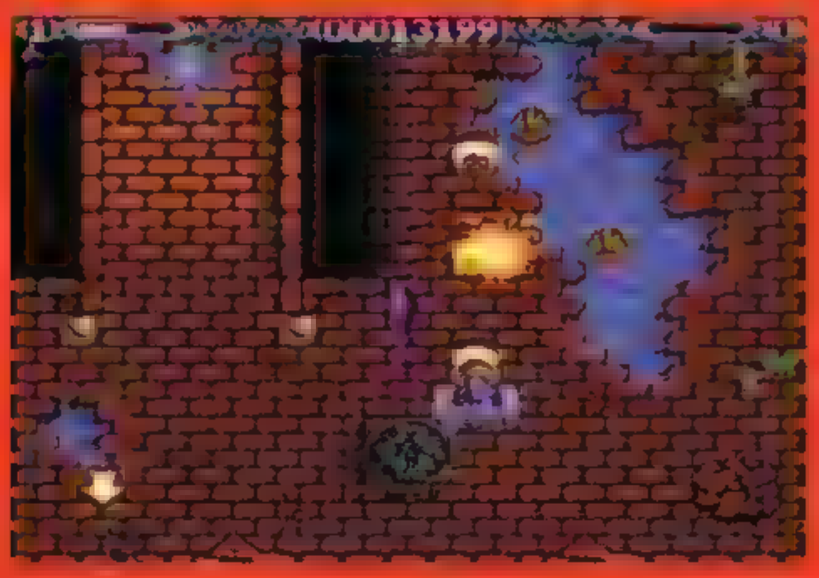
» CREEPY

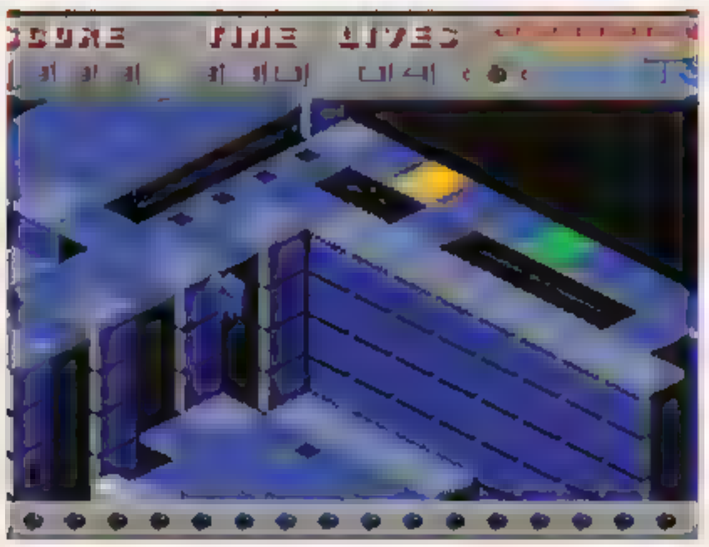
■ **The Atari ST** game creator STOS saw a real explosion in the homebrew scene for the machine Many of the games made were featured on magazine cover disks or became part of Public Domain libraries, but there were a select few that were so good that they were picked up by commercial software houses, and Richard Sheperd's brilliant *Creepy* was one of these Released as part of Atlantis' £6 99 budget range, the game is an unashamed clone of Ultimate's classic top-down Spectrum adventure game *Atic Atac*, which is no bad thing! Can you make your way through the dungeons and escape alive?



» ROBOTZ

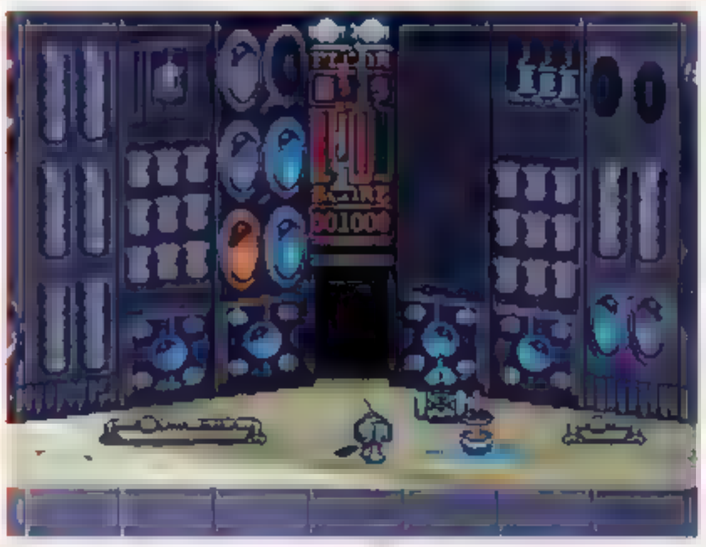
■ **Stern's highly influential** arcade game *Berzerk* has inspired many clones since it was first released in 1980. One of the best of these has to be *Robotz*, a fantastic shareware game for the Atari ST that was released some ten years later. There are a few small differences between the games though. In *Robotz* the metallic enemies take multiple hits to kill and you can't move onto the next screen until you take out the transformer in each room. This means the game becomes a bit more strategic and plays much slower. Interestingly this game was recently remade as *Robotz DX*, a homebrew game from RGCD for the PC!





» SPIDERTRONIC

■ **An isometric arcade** style game by French coders ERE, *Spidertronic* gives the early impression of being a clone of Atari's classic *Marble Madness* When you actually sit down to play it though you will soon see that it's a very different game. You control a spider that must try to escape each of the perilous levels. This is done by collecting a series of coloured squares and then placing them down like stepping stones to reach the exit. Each stage has multiple levels and our eight-legged hero must utilise the lifts to make his way around them. *Spidertronic* is a wonderfully unique and original game that provides a great deal of good honest fun



» G NIUS

■ **Back in the** Eighties French software houses were renowned for releasing some of the wackiest and most original games on the market. One look at some of the games featured in this article only confirms that, and Lankhor's *G Nius* is one of those standout titles that mixed quirky and fun to great effect. You take the roll of our titular hero who is a servicing droid aboard a futuristic space station But today you find that the place has gone out of control and you need to shut it all down by locating and activating all the power switches. With its great isometric graphics and digitised sound, *G Nius* is a real winner for the Atari ST

» SNOBALL IN HELL

■ **There are very** few arcade games over the years that have inspired more clones than Atari's *Breakout* While *Arkanoid* is probably the most famous of them, Atlantis's *Snoball In Hell* is definitely one of the most interesting For a start the game takes on a horizontal perspective as opposed to the standard vertical one. Then there are the shoot-'em-up elements that have been added to the game, meaning that you have to cope with hordes of attacking enemies as you bounce your ball off the bricks in front of you. This makes the game a lot more challenging than your average *Breakout* clone and well worth a play

Minority Report

STARRAY

» BLACK HORNET

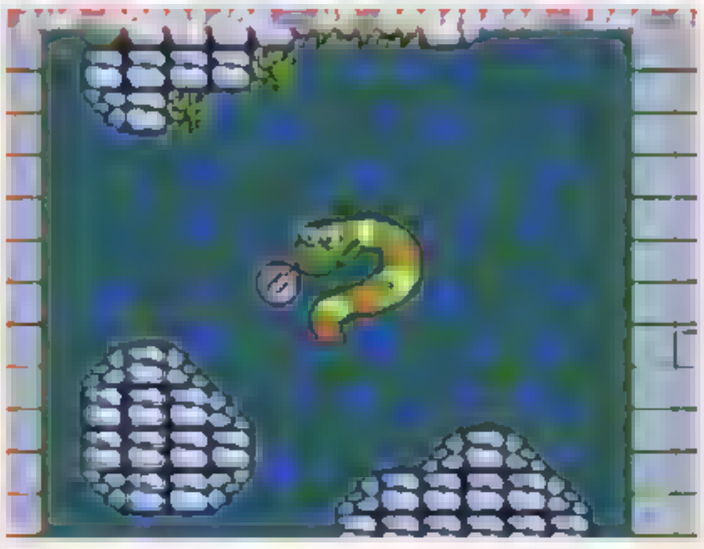
■ This probably isn't the most original game in the world, but it is a very good one Especially when you consider that this budget release has some of the best music we have heard in any ST game

» SUBSTATION

■ The best FPS on the ST, *Substation* shows that Atari's machine could still keep up with the competition in the mid-Nineties. It's late release means many never saw this though

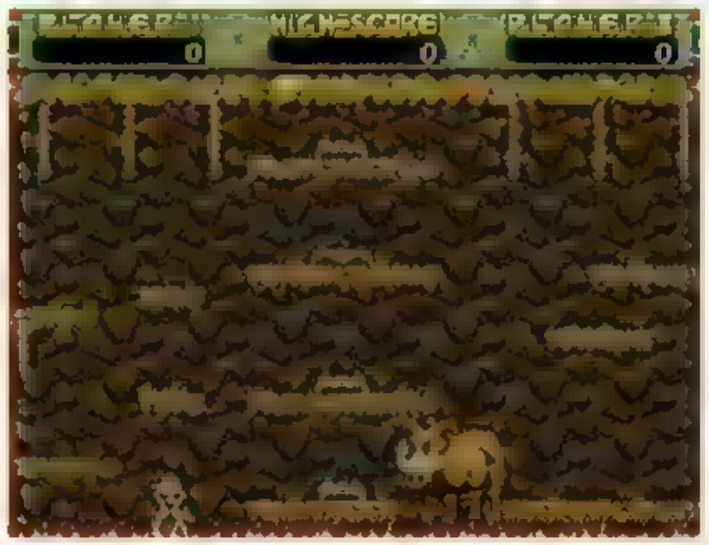
» MANHATTAN DEALERS

■ ***Manhattan Dealers* is** a very interesting beat-'em-up from French programmer Silmarils, which is probably best known for games like *Ishar* and *Robinson's Requiem*. It certainly seems to owe a lot to Taito's classic arcade game *Renegade* but also features many original elements of its own You play the part of a cop who is trying to clean up the streets of New York. The murky back alleys are infested with drug dealers and it's your job to duff them up, take the drugs and then take them back to the station. These dealers are hardcore thugs however, who are armed with knives, chains and even chainsaws



» ROCK 'N' ROLL CLAMS

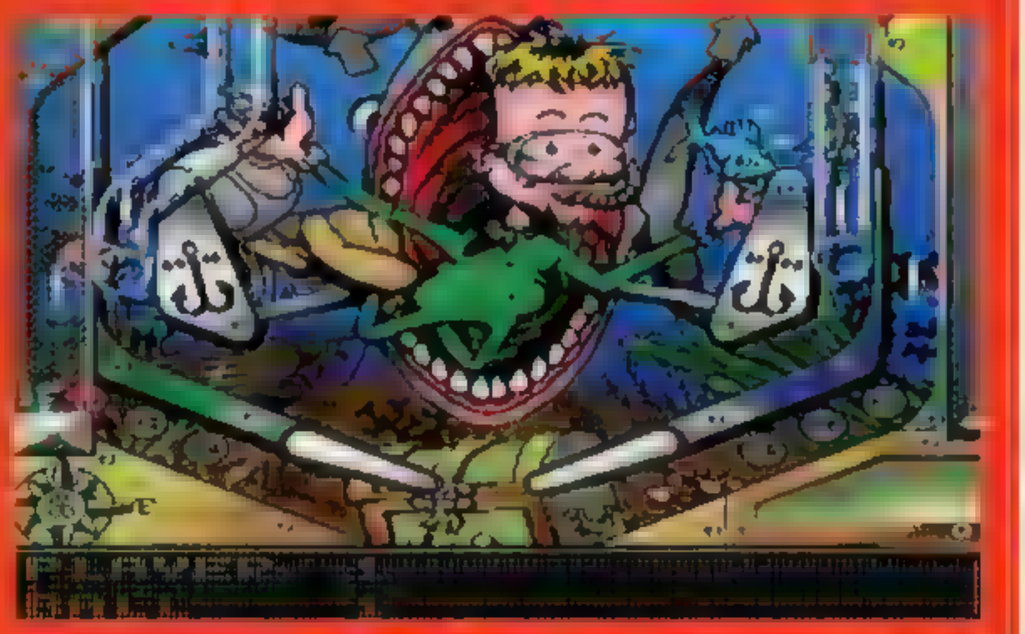
■ **This is a** wonderfully original and downright zany one or two-player platformer with STe enhancements. You have to bounce your clam around each level collecting the musical notes so you can take Casper Clam and his band from the bottom of the ocean to the top of the charts! *Rock 'N' Roll Clams* has all the charm of games like *Bubble Bobble* and *Rodland*, but this one is in fact an Atari ST exclusive. Having been released in the twilight of the ST's lifetime, this game was ignored by many people and it's about time we changed that! Fans of platform games will certainly want to hunt this one down



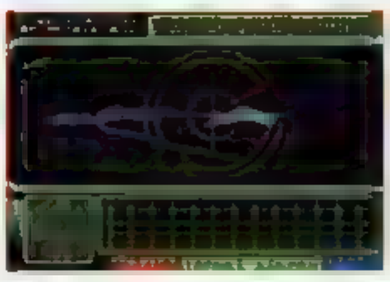
» YOLANDA

■ **Never have we** found a game that is so bloody frustrating yet so addictive at the same time. In this sequel to the 8-bit game *Hercules* you guide the titular Yolanda through a series of single-screen stages where your goal is a very simple one: to get her to the exit. You do this by jumping across platforms and climbing ropes This is not as easy as it sounds though, as there are numerous enemies trying to stop you and plenty of hazards in your way One touch of these and you are dead and will have to start over again! *Yolanda* will certainly test your patience to the limits

OBSESSION



» ZERO 5



■ This amazing 3D polygon space game takes *Star Raiders* to a new level and only works with the enhanced STe versions of the computer, taking full advantage of the extra hardware

» WARLOCK'S QUEST

■ Ere released some really quirky games for the ST, and this split-level arcade adventure is a real hark back to the early days of the 8-bit computers – albeit with some spanking digitised sounds

» TO BE ON TOP

■ ***To Be On** Top* is an arcade adventure of sorts by German company Rainbow Arts with a real Europop flavour to it. You are a struggling musician looking for inspiration for a hit single and you make your way around the town looking for it. You enter buildings such as bars, shops and houses looking for instruments to help you produce your record As the game progresses you see your position in the charts slowly rise and it's your eventual goal to get to number one! *To Be On Top* is a wonderfully unique game that sums up the late Eighties. Jochen Hippel's music is the real star of the show though, perfectly complementing the in-game action

» CYBERNETIX

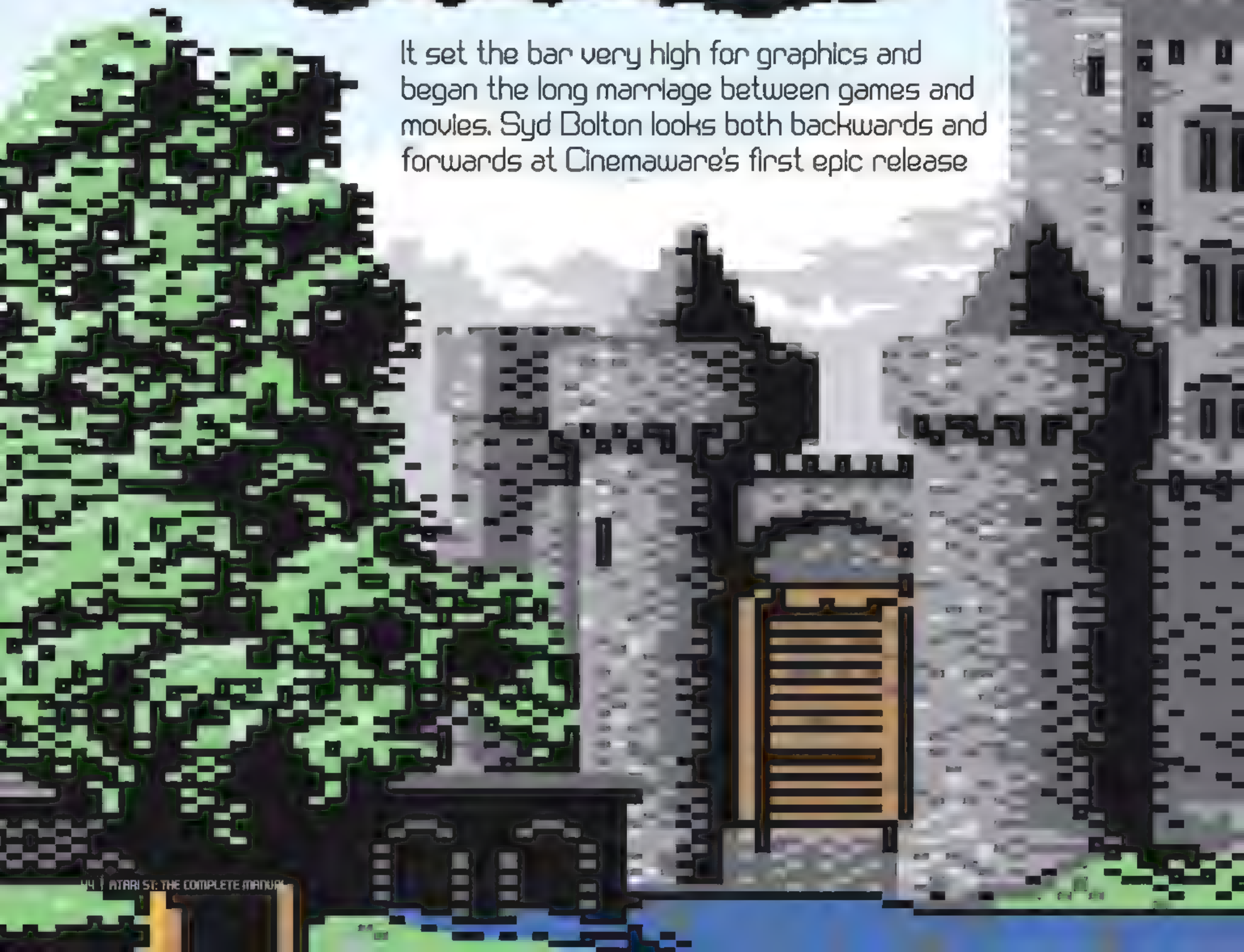
■ **This shareware game** from New Zealand's Vision Software is somewhat of a cult classic among ST owners. The first time most people played it is when it was given away on an *ST Format* cover disk A wonderful mix between *Asteroids* and *Defender*, *Cybernetix* is a horizontally-scrolling shoot-'em-up of the highest quality that still holds up well today The core gameplay is pretty similar to the seminal Williams classic but without the need to save any humans – it's purely in space. As well as enemy ships there are also asteroids floating around that split into pieces like the Atari game Add in a few power-ups and we have a real winner

» VROOM

■ **Lankhor's *Vroom* really** blew people away on its release, a Formula One-styled racing game that really showed just what could be done with the Atari ST in the right hands. In fact in impressed audiences so much that the publisher hired the French team behind it to covert it to the Sega Mega Drive as an official FOCA-licensed F1 game. Featuring real circuits from around the world and a behind the-wheel viewpoint, the most unique aspect of *Vroom* is the way it mixes 3D polygons with 2D bitmaps to provide a super-fast and very realistic racing experience. This is definitely the best game of its type on the 16-bit Atari

Defender of the Crown

It set the bar very high for graphics and began the long marriage between games and movies. Syd Bolton looks both backwards and forwards at Cinemaware's first epic release



Few games can claim to be system sellers the way that *Defender Of The Crown* was when it was released back in 1986. Packing a massive 1.5 megabytes of graphics onto two disks (which were cleverly labelled 'Reels'), Cinemaware's glorious looking game helped sell Amigas in the shops as customers were wowed by its impressively smooth animation and cinematic music. The game quickly became a big success for Cinemaware, leading to other classics ranging from *The King Of Chicago* to *Rocket Ranger* and *It Came From The Desert*. Despite its critical and commercial acclaim, the development phase of *Defender Of The Crown* was not quite as smooth or harmonious as you'd think.

IN THE KNOW

» **[redacted]**

» **DEVELOPER:** MASTER DESIGNER SOFTWARE (AKA CINEMAWARE)

» **RELEASED:** 1986

» **PLATFORM:** DOS, NES, APPLE IIGS, ATARI ST, APPLE MACINTOSH, ZX SPECTRUM, AMSTRAD CPC, COMMODORE 64, COMMODORE AMIGA, COMMODORE CDTV, CD-I, WINDOWS, GAME BOY ADVANCE, IOS

» **GENRE:** ACTION/ STRATEGY

Cinemaware co-founder Bob Jacob was growing tired of how games were mostly designed and programmed by the same person, and decided that Cinemaware should try to do something a little different to its peers. As a result, he began to look to movies as a source of inspiration. He had an idea for a game that used the concepts of the popular board game *Risk*, but was centred around "knights and jousting and damsels in distress". When he shared his broad vision with game designer Kellyn Beeck (sometimes credited as Beck) in February of 1986, their ideas seemed to meld together quite well and a vision for Jacob's original idea came together quickly Knowing that medieval Britain was a well of legend to draw from as source material, Beeck based the game loosely around the time period that included chivalrous knights, pretty women, and of course Robin Hood, who pops up during the actual game

Like traditional films, Kellyn created elaborate storyboards for the game, which enforced the cinematic feel that would fuel *Defender Of The Crown* and many later Cinemaware games "*Defender* is a mix of strategy, action, and even a little RPG Well, perhaps rpg in lower case letters" says Jacob about Cinemaware's excellent game and the approach the team took with it. *Defender Of The Crown* was the first game in a long series from Cinemaware that changed the presentation and quality of games and truly tried to bring cinema and gaming together Cinemaware was also notable for taking its time on conversions to different platforms, often starting from scratch with many game assets. The end result was that a Cinemaware game always felt like an experience, a game you had to pick up no matter what.

Kellyn, along with producer John Cutter, set out to assemble the right team to create their ambitious first game. Master Designer Software (the name of the company before it was formal y changed to Cinemaware) was working with Aegis Development and through it met Jim Sachs. He was already an Amiga developer and had some previous success on the Commodore 64, but was looking forward to the great capabilities of the ▶

» The trumpets blare Jim Cuomo's score while the disk loads the jousting level

» Sword fighting with multiple opponents before entering the inner sanctum of the castle

▶ Amiga He was soon hired as art director and managed a team of six other artists. Jim Cuomo was in Los Angeles on a software sales trip. He met with the team and was hired to do the music. Two additional people were hired to do the programming

The graphics for the game progressed quickly, but there was a lot of it to do and, at the time, the tools Sachs had access to were rather limited. Sachs was drawing screens one pixel at a time using Graphicraft on the Amiga, as Deluxe Paint had not been released when work on *Defender Of The Crown* started Sachs switched over to what was to become the industry standard, but was still learning the intricacies of the program. He was enamoured with its new file format, however. "What an incredible gift the ILBM graphics standard was to artists!" He tells us. "If you set one or more colour ranges, the computer would automatically cycle through them whenever the screen was displayed. From glittering metal to water effects – I was delighted to have this 'free' animation available. Hardly a day went by when I didn't find a new use for it. Just a touch of water ripple or flickering flame gave the Amiga scenes a life that had to be lacking in machines without colour cycling."

Musician Jim Cuomo did not see the graphics for the game until the end, but was told to "listen to the music from the classic film *The Adventures Of Robin Hood*." He did, but decided to go his own way by using a piano to compose the final pieces, which were then orchestrated on the Amiga by Bill Williams. To this day, Cuomo is pleased and surprised by the many nods the music from *Defender* has received by other artists doing their own remixes and versions. "The funniest by far is by Danish band Press Play On Tape in which the main theme was sung acapella with amusing lyrics," he reveals. Cuomo currently lives in Australia and performs a one-man show around the world that includes excerpts from *Defender*

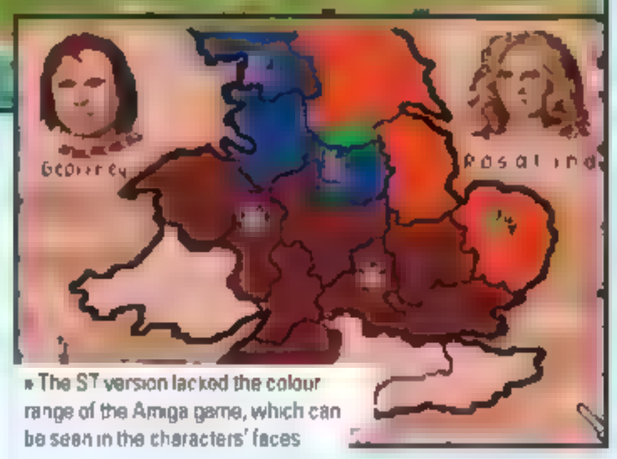
DEVELOPER HIGHLIGHTS

SDI
SYSTEM: AMIGA, ATARI ST, COMMODORE 64, ZX SPECTRUM, DOS, MACINTOSH
YEAR: 1986

IT CAME FROM THE DESERT (PICTURED)
SYSTEM: AMIGA, ATARI ST, MEGA DRIVE, TURBO GRAFX 16, DOS
YEAR: 1989

WINGS
SYSTEM: AMIGA, GAME BOY ADVANCE
YEAR: 1990

▪ RPG elements include different levels of leadership, jousting, and swordplay for the characters



▪ The ST version lacked the colour range of the Amiga game, which can be seen in the characters' faces

PORTING DOTC TO INTELLIVISION

It is difficult to fathom that a game created on the most powerful computer available in 1985 has been ported down to what was, arguably, the most powerful videogame console available in 1980. With advances in Intellivision development in both tools and hardware, French Intellivision developer Arnauld Chevallier set out on this ambitious project, completing about 60 per cent of the game before moving on to other ventures. The team at the Personal Computer Museum have picked up the task of finishing off the development side of the project, and the completed game will be available this year from Elektronite/ Classic Game Publishers. Videos of the game as it has developed so far are available on YouTube, showing just how well the game has translated to the more limited Intellivision. All screens will be present and, in addition, the music and the gameplay is taken from the more advanced Commodore 64 and Atari ST versions – so, in some ways, it could potentially be better than the Amiga version. A new graphics tool has been developed to help with converting higher resolution (and higher colour palette) images from modern computers down to the restrictive Intellivision palette and size. Developing games for the Intellivision is particularly interesting, as the main processor is the General Instrument CP1600, which was based on the PDP-11, a popular minicomputer.

The original programmers on the project had not turned in anything feasible after weeks of working on it, and the entire game was in critical danger. At the time, it was felt that the only two programmers that were available with enough inside knowledge of the machine were RJ Mical, who created the 'Intuition' user interface on the Amiga itself, and Carl Sassenrath, who developed the low level multi-tasking 'Exec' operating system of the machine. In the end, Mical was chosen and brought in to finish the job

Taking only six weeks, Mical saved the project by bringing life to all the graphics and sound that the rest of the team had put together. He started to develop what was known as the 'Mical Game System', which was intended to be used with other titles. His talent for developing tools of this nature for the games industry would continue to be useful for other game projects that he would work on over the years, such as the Atari Lynx, the 3DO console and, more recently, developer tools for the PlayStation 3 and Vita

Looking back, it almost seems like Mical had a vision for the future on how game development would be done A software package called Aegis Animator allowed for non-programmers to create animations in a variety of ways. One was creating all of the 'in between' frames (known as tweening) between two different key frames. This is essentially what Adobe Flash would become many years later, and Mical wrote special code to implement the scripts created in Animator right into the game. Sachs, it would appear, actually looked backwards for help with the art. "For the side views of the running horses in the jousting scene, I used 100-year-old rotoscopes done by Eadweard Muybridge" he reveals. "Memory constraints meant I had to whittle these down to only five positions, but the animation was still pretty effective."

▪ The sword fighting shown here includes health meters, something the original was lacking

Unfortunately, looming deadlines forced things to go a little off the rails near the end of the development process. For financial reasons, the game had to be released for Christmas 1986 in order to start bringing money back into the coffers at Cinemaware As a result, many compromises had to be made. Almost everyone on the project was working from their own homes (Sachs, for example, was located over 200 kilometres from the head office) and putting in overtime "Weeks of 20-hour days nearly killed me," explains Sachs about the important crunch time. Major compromises started creeping into the project. "The little stick-figure characters in the swordfight scene were certainly not my first choice," he continues "We all would have opted for a first-person view, but it just wasn't feasible".

Although the Amiga port is considered to have the best graphics and sound, cutting the project short meant that some of the gameplay elements had to be removed as well. In the Amiga version, fighting against other armies is essentially done behind the scenes. In the Atari ST and Commodore 64 versions you can employ different strategies in the fight such as charging, standing, or taking a more defensive position

The group that ported the game to the Commodore 64 were grateful for Deluxe Paint, as the graphics were done by literally taking the Amiga version and using every other pixel. "The results were astonishing," according to Jacob. In the end, the game was ported to DOS, Apple II GS, Atari ST, Macintosh, Amstrad, Commodore 64, CDTV,

CD-i and eventually the NES and Game Boy Advance. Most recently, the Amiga version has been ported over to iOS for play on the iPhone and iPad. A version intended for commercial release (but never released) for the ZX Spectrum was also made, and an unofficial version for the Commodore Plus/4 exists as well. A licensed Intellivision version is due by the end of this year

Various sequels of the game have also been made over time. *Defender Of The Crown: Heroes Live Forever* is a high definition remake of sorts on the Windows platform, while *Robin Hood: Defender Of The Crown* for the PlayStation 2, Xbox and Windows is directly inspired by the original. Just before Commodore went bankrupt, it commissioned Jim Sachs to create *Defender Of The Crown II* for its CD32 system. More of a director's cut than a true sequel, Sachs worked mostly alone on the game. "I changed the gameplay somewhat – the player was now trying to raise money to pay the ransom for King Richard, not trying to gain enough influence to become

> **"Defender is a mix of strategy, action, and even a little RPG. Well, perhaps rpg in lower case letters"**
> BOB JACOB, EXECUTIVE PRODUCER

King himself," he explains. "Then, I wrote narration and hired voice actors to record it in five languages. I added some animation and some scenes. I wrote all new music with a fully-orchestrated cinematic opening. I rewrote every line of code in an Amiga-specific language called 'The Director'." With limited CD32 distribution and the disappearance of Commodore, this version is likely the hardest to obtain today

While Cinemaware's huge project was quite difficult for its creators, it seems to have clearly left a lasting impression on them. "I'm just glad I was in the right place at the right time to be involved with the project" says Sachs. "We've been thinking about *Defender* quite a lot lately," continues Beeck. When asked about the Intellivision version, RJ Mical was quick to offer the following information 'I will do the programming myself!" he joked. But was he joking? It seems like *Defender Of The Crown* still has a huge pull over those who worked on it, and it is clearly still as loved by its developers as the gamers that continue to play it to this day. A rare thing indeed.

MORE 16-BIT MOVIES

Additional cinematic masterpieces from Cinemaware

KING OF CHICAGO (1987)

■ Set in the Thirties, this was likely the first mobster videogame ever made. Initially developed on Macintosh, the team at Cinemaware enhanced the visuals with full colour for the Amiga and other platforms. Your goal is to increase the size of your gang and take over the city, doing so with drive-by shootings, gambling, bombings and even bribing government officials! Released before game ratings systems were in effect, this likely would have been an 18+.

SINBAD AND THE THRONE OF THE FALCON (1987)

■ As Sinbad, you are commissioned to rid the land of the dark prince. Developed on the Amiga first, *Sinbad* took you through various screens including a large map with a huge magnifying glass, an earthquake that has you avoiding falling rocks, a Cyclops creature to defeat and a shipwreck. Its designer, Bill Williams, also designed the first commercially available Amiga game – *Mind Walker*.

THE THREE STOOGES (1987)

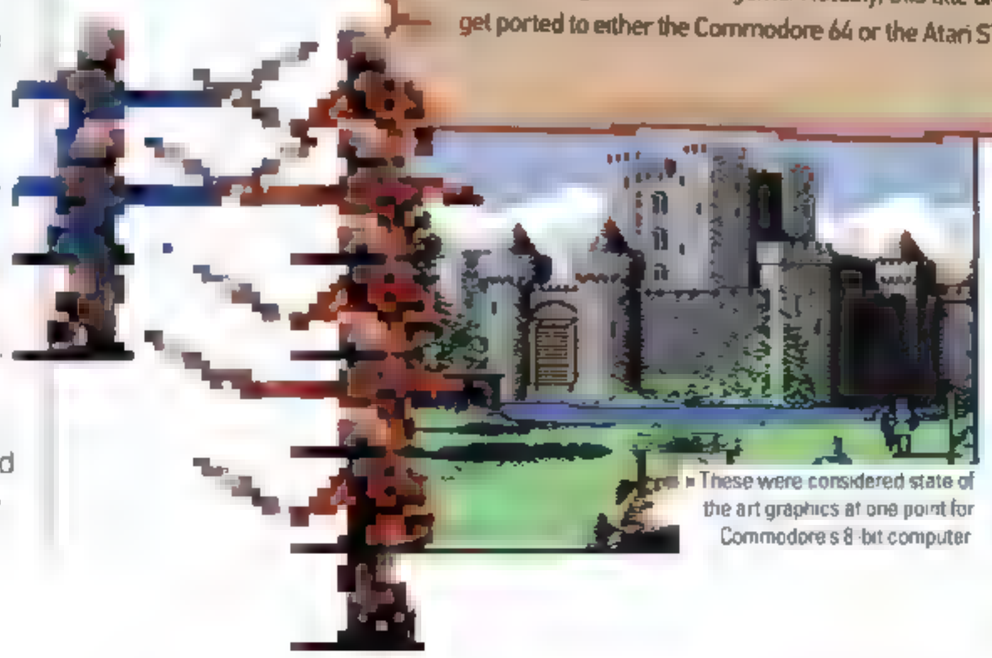
■ *The Three Stooges* incorporated elements from many of the comedic trio's best moments. Featuring extensive use of sound samples and digitized frames of film, it even parodied *Defender Of The Crown* in its opening sequence (apart from in the NES port, which features *Ghostbusters*). The aim is to raise money to save an orphanage, and the player works through several screens to do so. The mini-games vary in quality, but the comedy is ever present

ROCKET RANGER (1988)

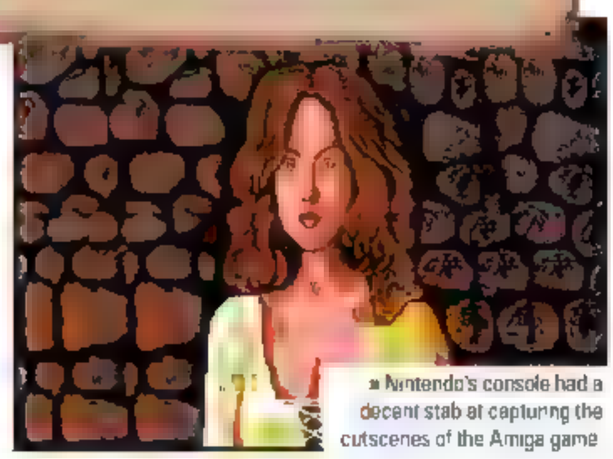
■ *Defender Of The Crown* designer Kellyn Beeck brings us another cinematic classic. You have to collect five parts of a rocket ship (and 500 units of lunarium to power it) in order to reach the moon. The game featured a special 'decoder wheel' as part of the copy protection. If you didn't enter the correct number from the wheel, based on your destination, the rocket would crash. The graphics raised the bar, with large sprites and cinematic music by Bob Lindstrom.

LORDS OF THE RISING SUN (1989)

■ Yet another Cinemaware title to feature a map, *Lords Of The Rising Sun* is set in 12th Century Japan and has you setting out to become a Shogun to restore your family honour. A mixture of action and strategy, *Rising Sun* features a very cinematic opening but purveys the least action of all the Cinemaware titles. The CD-i version featured real actors that were digitised into the game. Notably, this title did not get ported to either the Commodore 64 or the Atari ST.



» These were considered state of the art graphics at one point for Commodore's 8-bit computer



» Nintendo's console had a decent stab at capturing the cutscenes of the Amiga game

Desk File View Options

THE NEVER ENDING STORY

HOW THE ATARI ST IS MORE THAN JUST THE AMIGA'S LONG-FORGOTTEN RIVAL

Despite its massive success, the Atari ST now seems to have become no more than a footnote in videogame history, always ignored in favour of its more illustrious rival – the Commodore Amiga. It's high time we set that straight. Just as many of us reminisce nostalgically about our days with the ST, we hope a few readers of RG will also start to see this wonderful computer in a whole new light...

The Atari ST began life as a computer codenamed the RBP, for Rock Bottom Price, and was the brainchild of then newly axed Commodore boss Jack Tramiel, who sadly died earlier this year at the age of 83. The year was 1984 and Jack had just formed a new company called Tramel Technology – spelt this way as it's actually the correct way to pronounce his surname – along with his sons and several ex-Commodore employees.

Their objective was to create an affordable 16-bit computer to bring the next generation of micros to the largest audience possible. Jack was also very aware of the growing computer industry in Japan and was keen to stop the Japanese advance into the US market in its tracks. Soon after though, Jack found out that Warner Bros was looking to offload its debt-ridden Atari consumer division, responsible for home computers consoles and videogames but not coin-ops. He soon secured the funding needed to buy Atari and the Atari ST was born.

Based around the Motorola 68000 CPU, the Atari ST was originally intended to feature 128K or 256K of RAM as standard

but this was changed just before its full release to 512K, as it otherwise left very little spare memory when the OS was running. Interestingly, the ST was going to have an early version of Windows as its operating system, which is ironic when it was the success of Microsoft's OS in PCs that helped kill the ST and win the home computer war. Because Windows wasn't ready in time, it shipped instead with another new GUI-based OS, GEM (Graphical Environment Manager) by Digital Research.

It was the very first home computer to feature integrated MIDI support that gave the machine great inroads into the growing electronic music scene. With its three resolution modes, including a monochrome 600x400 flicker-free high-res mode, it also made the ST a serious contender in the CAD market, going up against the popular Apple Macintosh range. There are many rumours about where the ST name came from, including a suggestion that it was named after Jack's son, Sam Tramiel, but the truth is that it stands for 'Sixteen Thirty-two' – a reference to its Motorola 68000, which was 16-bit externally but 32-bit internally. In its early days the ST was also nicknamed the 'Jackintosh', a clever take on the name of the Apple machine that it was set to compete with.

STUNNING THE MARKET

The ST debuted in 1985 at the winter Consumer Electronics Show in Las Vegas. Industry onlookers were stunned at the machine's quick development, and there were mixed reactions for its sleek all-in-one design. From its release, Atari positioned the ST as a serious computer aimed squarely at the business market, and as such it often came bundled with applications such as word processors, spreadsheets and database programs.

However, it wasn't long before people recognised the machine's potential as a competent games machine. With its large palette of 512 colours, three-channel Yamaha sound chip, and built-in joystick ports and disk drive, it represented a great value all-in-one setup for gaming. Michael Raasch, once of Rainbow Arts and Thalion, was one of the many people impressed with the specs of the ST. "Having full control over the hardware was a big strength of the machine. Especially with its flat memory model, excellent CPU

The mag factor

ST FORMAT

Future Publishing
August 1989 – Sept 1996
(86 Issues)

This magazine was launched in 1989 when its predecessor, the short-lived *ST & Amiga Format*, was split into two separate publications. Most of the staff went on to work at *ST Format*. The longest-running mag for the machine, it was also the most balanced, covering games and more serious software.

ATARI ST USER

Europress
April 1987 – Nov 1994
(91 Issues)

ST User was the magazine aimed at the more serious audience, with lots of technical features, reviews of business software and application-focused cover disks. It featured some excellent PD games on its cover disks over the years, and at the end of the publication's life it merged with *ST Action*.

ST ACTION

Gollner Publishing
April 1988 – Nov 1994
(79 Issues)

For the early part of its life, this was the only ST magazine dedicated solely to games. This changed with the arrival of *The One For ST Games* in May 1991. However, just under a year later *The One* was merged into *ST Action*, with little change to the magazine. The cover disks were often notable for their exclusive demos.

Amiga Beaters

The classy Atari ST titles that Commodore's Amiga couldn't touch

CAPTAIN BLOOD >INFOGRAMES

Although *Captain Blood* was released for a number of different platforms, the Atari ST version was the first and thus all subsequent ones were derived from it. Being that it was designed for the ST, it made full use of the machine's features. The later Amiga version played slower, lacked some minor features and was also missing many of the alien sounds. Fans argue that the full set of alien languages are integral to playing the game as it was meant to be played

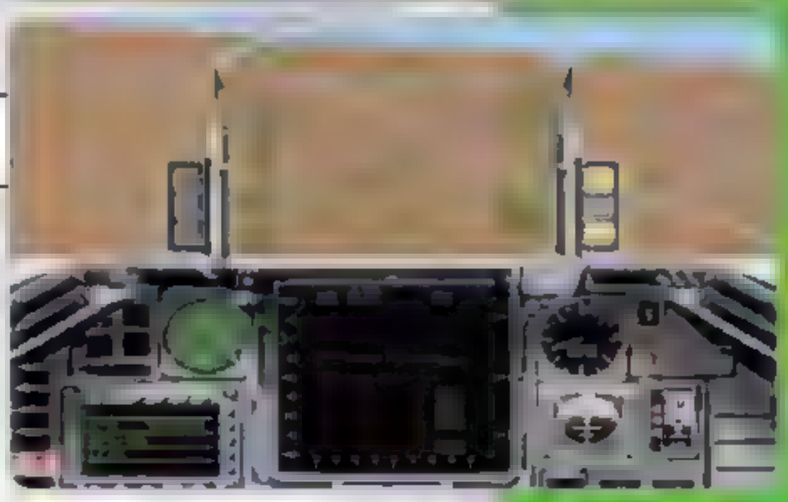
OUTRUN >US GOLD

While both versions – and most of the other home computer ports, in fact – were pretty poor, the Amiga version is particularly bad. The version for Commodore's 16-bit computer came out around a year after the Atari one, and although it was common at this time to just port the ST code, this was a very poor effort indeed. It had an ugly yellow border, jerky graphics, out-of-tune music and possibly the worst sound effects you will ever hear in a videogame.

DEFENDER OF THE CROWN >CINEMAWARE

Ask anybody in the know about ST games that are superior to their Amiga counterparts and this game is mentioned time after time. Like many of the other games listed here, the ST version came out earlier and the later Amiga port had a number of differences. The most notable of these was that in the ST game the combat elements worked much better, especially the jousting, and saving the damsels in distress was a much easier task to perform.

FALCON >SPECTRUM HOLOBYTE



One area where the Atari ST is usually known to excel over the Commodore Amiga is in 3D performance. The ST featured a faster CPU, and the way it displayed graphics meant games utilising polygons often ran both faster and smoother on the Atari machine. *Falcon* is one of the most notable of these, and it's easy to spot the difference when both versions are played side by side.

TIME BANDIT >MICHTRON

Time Bandit is an iconic game among ST owners; it was one of the very first games released for the machine back in 1985 and became an instant favourite. Itself a conversion of the Dragon 32 and TRS-80 game, it was also ported to the Amiga three years later for the budget market. The version on Commodore's home computer was missing some of the graphics from the ST original and was criticised for its ill-suited sound effects too.

that was far superior to the x86 that PCs of the time used, indexed colour palette, easily extendable through different mods including a simple memory upgrade, and MIDI!"

This was strengthened further with the addition of an RF modulator so it could be used on a TV without the need for an expensive monitor. Atari added letters after the ST name to determine the system type With the STFM, for instance, the F stood for built-in floppy disk and the M for modulator

GAME STATION

Many of the early games produced for the ST didn't make much use of the extra hardware as programmers struggled to get to grips with the 68000, and many were just simple card games or arcade clones "Coding was not that easy back then compared to nowadays. There was just machine code and no tools except for the ones you made for yourself," recalls Stefan Kimmlingen, who worked at Eclipse Software during the ST years.

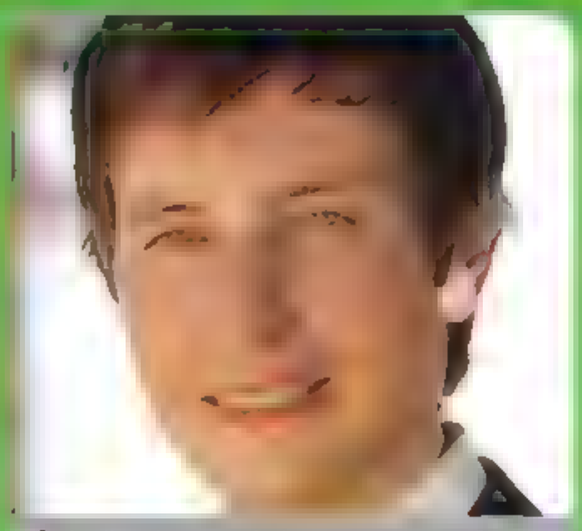
This all changed with the release of *Dungeon Master* by FTL in 1987. The first game to really show what this new 16-bit technology could do, it was a vast RPG that was represented in 3D and revolutionised the genre. It sold 40,000 copies in its first year of release alone and went on to become the bestselling ST game of all time. It's been said that more than half of all ST owners actually bought a copy of this game, a truly outstanding figure that highlights both its market penetration and significance

While this title was subsequently converted to a host of different platforms, it's on the good old Atari ST that *Dungeon Master* is best remembered. From this time onward, the ST began to garner an increasingly solid reputation as an adept games machine

The programmer of the classic ST game *Starball*, David Oldcorn, remembers when

The ST's big rival the Commodore Amiga A500

Richard Karsmakers is a game designer and journalist who worked for Thalion Software and was also the brains behind *ST News* magazine. He wrote the background stories for near enough every Thalion game up to 1991



Stefan Kimmlingen worked as a graphics artist for Eclipse Software. His CV includes games such as *Stone Age, Monster Business, Bundesliga Manager*, and Iron Soldier and Iron Soldier 2 on the Atari Jaguar

Michael Raasch was once a games developer at prestigious companies like Rainbow Arts, Thalion and Eclipse Software, working on notable games such as *Dragonflight, To Be On Top and Gates Of Jambala*

he got to grips with the machine: "I loved the ST. It was easy to learn and start knocking code out on, but the ultimate limit of what you could do with it was all down to your own smarts."

As people began to push the ST hardware further, they also began to learn that this powerful 16-bit beast still had limits, and this now became part of the challenge. "I think we all liked the fact that the machine had its limits. It was amazing to see that some guys really didn't care too much about that fact and just made really amazing games," Stefan adds

Atari was quick to cash in on this new-found reputation with the release of the ST Action Pack bundle. This proved to be a big hit with consumers, due to its great value for money. Including up to 30 games and an Atari joystick, plus everything needed to connect it to your TV at home, the promotion was advertised heavily in the gaming press and helped persuade many of the remaining 8-bit hangers-on to trade up

THE COMPETITION STORMS IN

Once Commodore's Amiga finally hit the market, designed by ex-Atari staff and originally funded by Atari under Warner Bros, it saw the two 16-bit juggernauts go head-to-head on a level playing field. Now the competition had arrived, the greatest playground rivalry since the Spectrum vs Commodore 64 ensued. As the home users became fiercely loyal to their respective brand, so did many of the professional coders too, each having their own favourite machine "I loved the ST," enthuses Stefan.

"Somehow it just felt like home working on it. I never got used to the Amiga, though it had more colours, better digital sound, and fewer limitations. But as I told you before, the limitations we had to deal with made every product a little more special."

In the early days, the ST had the upper hand, mainly thanks to its far cheaper price and great value Action Pack. This led to most of the games of this time being developed on the ST first and then converted over to the Amiga. This commonly resulted in very little difference between the two versions, which often gave the appearance of the machines being equals

It was only once the price of RAM began to skyrocket, and the price of the ST rose to that of its rival, that the balance of power started to shift. Developers wanted to produce games aimed at the Amiga to cater for its rapidly enlarging market, and its superiority quickly became apparent. Atari's release of the STe line, where the 'e' stood for 'enhanced', did little to help, despite featuring more colours, a blitter co-processor, and better sound. The first fault with the STe was that it had compatibility problems with a number of popular games, and it was also strangely sold alongside the cheaper STFM variant for a while, confusing many consumers.

We spoke to several coders, all of whom had very different views on the STe. While Richard Karsmakers of Thalion Software thought the STe was "too little, too late" and "not powerful enough to compete with the Amiga", Stefan told us: "The STe was not too late. At the time it came out the Amiga had its own fan base, and the ST did too. It was a good little update; we all had an STe where I was."

The most in-depth opinion, however, came from David Oldcorn: "Too little, no. Too late, certainly. Indeed, one of the problems was that there was no possible upgrade path to STe hardware that didn't involve buying a new machine. If Atari could have shipped it in 1987, with a few simple fixes such as writable screen current and low-byte VAP, and made them available to everyone with just an MMU change, then it might have had more traction."

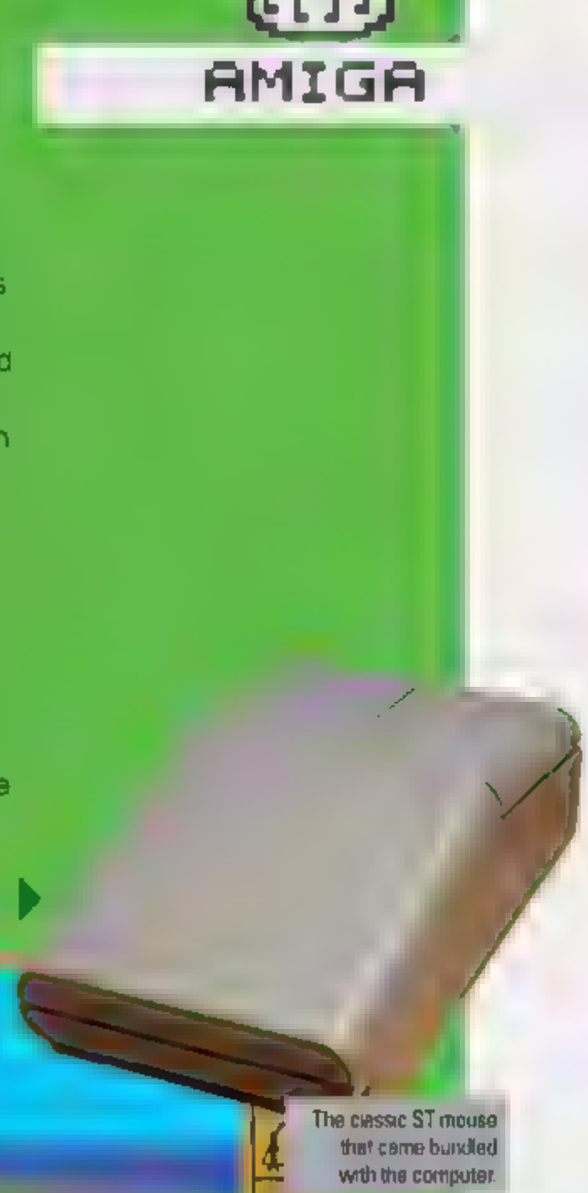
These many problems meant that very little software was actually released that took advantage of the extra hardware, leaving the Amiga to dominate, and eventually win, the 16-bit war

THE START OF SOMETHING SPECIAL

What have stuck with many people from the ST years are the working relationships and friendships that arose and continue to flourish. The 16-bit years saw the solo bedroom coder replaced with teams of people to handle each aspect of game development. Graphic artists, musicians, testers and game designers joined up with programmers to create far more complex projects. This teamwork led to some groups of developers becoming more like families as they lived out of each other's pockets and stayed up all night to meet deadlines.

"We stayed in the Thalion HQ to work on *Dragonflight*," remembers Michael Raasch. "By staying, I mean sleeping bags on the floor, eating lots of pizza or Greek fast food and going to the local pool due to the lack of showers in the office! One morning Jochen Hippel woke up and said: 'I feel totally shite! I woke up at night and was so thirsty I grabbed the bottle next to my sleeping bag and had a big sip, only to figure out that it was my shampoo!'"

And he's not the only one with fond memories. "My best memory of the ST is



The classic ST mouse that came bundled with the computer.

Carrier Command was a good example of the ST's power

There were plenty of quirky games on the Atari ST, as *Weird Dreams* proved.

definitely the people I have met! No doubt about that," adds Stefan. "I am very happy that I am still in touch with some of the most amazing guys you could imagine The mighty Jochen Hippel was my best man at my wedding."

It also seems that alcohol may have played a big part, if David's story is anything to go by: "Just after finishing *Starball*, we started work on a beat-'em-up game for the Falcon, provisionally titled *Super Kick-Up*. We'd done some trial graphics and lovely high-colour sprite routines, and I'd worked out a very clever way of doing drop shadows that would neatly run onto certain types of architecture in the background and look very cool, but to make it efficient I needed to rearrange the graphics formats. I'd just started doing this on the day my mate graduated, and we had a pint or four at lunchtime. I came back in and started trying to fix this. After about an hour I realised I'd deleted loads of code I really needed, and turned the machine off and had a nap. Then I tried again, and an hour in, the code was so complicated I couldn't understand it any more. I turned the machine off again and bought a PC the following week. Don't program after a liquid lunch!"

Of course, we can't talk about teamwork and the ST without mentioning the vibrant demo scene. Ever since the ST arrived, people have been writing demos for it to see what they could make it do. From this grew groups of coders, commonly referred to as 'sceners', trying to outdo each other with more complex demos and, even more so, outdo the efforts of the rival Amiga groups. This demo scene is still going strong, with demo parties like Sundown, Silly Venture and Outline taking place each year all over Europe. Many of these demo coders are keeping the ST alive as a games machine today, with recent homebrew releases like *r0x*, *Catch Me If You Can* and *Fear*

Dungeon Master was the one title that put the ST on the map as a games machine

STOP OF THE POPS

During the early to mid-Eighties, pop music ruled the charts, from the New Romantics to the paint-by-numbers efforts of Stock, Aitken and Waterman. The arrival of affordable keyboards and synthesizers saw electronic flavours start to creep into the top 40. Pop took a back seat in the late Eighties, though, thanks largely to the Atari ST. Its affordable price and built-in MIDI ports allowed Atari's computer to take music out of the expensive, high-tech studios and into bedrooms all over the land

This saw a revolution in the music charts as groups like Altern 8, The Prodigy, Orbital and Fatboy Slim appeared and began to dominate the top ten each week. ST programs like Notator, Quartet and especially Cubase allowed you to write your own tunes on the ST and play them back through your keyboard, synth or drum machine. Many people still use the ST or its successor, the Falcon, to make music today, thanks to its easy-to-use software and reliable hardware. It took many years for the PC to even come close to matching the ST when it came to music-making. The MIDI ports are perhaps the biggest legacy of the ST today

Max Hall's music studio with an ST at its heart

> "It took years for the PC to even come close to ST in music-making"

THE LAST WORD?

With its sizeable user base, the ST lived on well into the Nineties and was still being sold when Atari's last machine, the Jaguar, came along in 1993. The ST also had a successor in the form of the Atari Falcon, a 32-bit computer that was backwards compatible with a host of ST software and originally designed to go head-to-head with the Amiga A1200. Sadly, it was a commercial failure as it went through a host of delays, was shipped in essentially the same case as the ST, and failed to appeal to key developers.

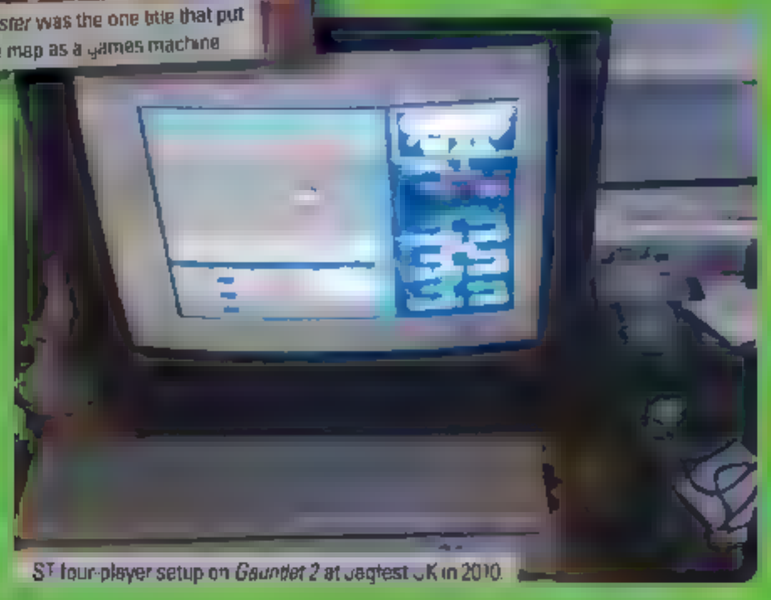
"The Falcon was quite a good idea but too late, too expensive, and hardware-wise it seemed to just have been hacked together," Michael Raasch recalls. "Norman Kowalewski (Atari Germany) once sent me a Falcon that I could test drive for a couple of days before it was for sale, but it was just not enough time to make something out of it. And, last of all, better marketing; they had lots of ads in magazines aimed for Atari ST owners. Uh, why?"

It did, however, gain a nice foothold in the music industry, where the ST was still largely dominant. The ST ended up being Atari's last real games computer as the shift to console gaming began

Many believe that Atari should have continued to pursue that market like Commodore did, but David Oldcorn reckons Atari did the right thing. "I don't think anything it could do would have changed the trajectory of the market," he says. "In 1990 the Mega Drive and then the SNES would always have finished all the other games machines, and a year or two later the PC became competitive on price and killed the 'custom' business machines. The Amiga hardly lasted any longer than the ST, after all. All Atari could have done was to try to outdo the consoles, as they realised belatedly with the Lynx and Jaguar, but being a US company they never really had much of a chance at that either."

The Atari ST. It was a games machine, a music-maker, the heart of the office and a major part of many lives. The machine continues to live on through the demo and homebrew scene, and can still be found in the corner of many a studio. The history of home computers would definitely be a lot less rich without the ST making gaming's first steps into the 16-bit era

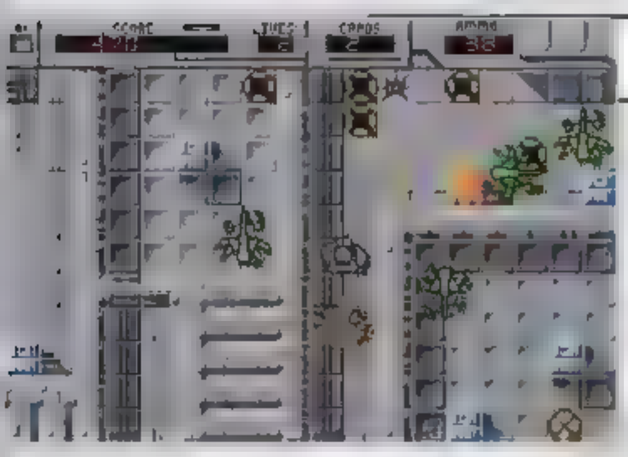
Special thanks to the ST Demo Scene Group, Atarilegend.com, David Picken, Max Hall, Richard Karsmakers, Stefan Kimmingen, Michael Raasch and David Oldcorn for help with creating this article


ST four-player setup on *Gauntlet 2* at Jagfest UK in 2010

Cover disks were very popular, and in the early years magazines like *The One* carried dual-format ST Amiga disks.

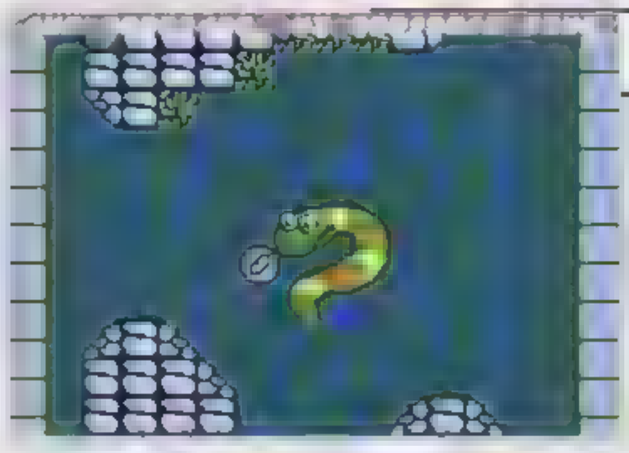
Ten ST exclusives

The best games available for Atari's 16-bit home computer



ALIEN THING
< 1995 TOP BYTE SOFTWARE

Arriving very late in the ST's life, this game was clearly inspired very heavily by the Amiga game *Alien Breed*. A wonderful *Gauntlet*-like maze-based shooter with some lovely graphics and really top-notch digitised sound. This title also takes advantage of the extra hardware in the STe to great effect.



ROCK N ROLL CLAMS
< 1994 CASPIAN SOFTWARE

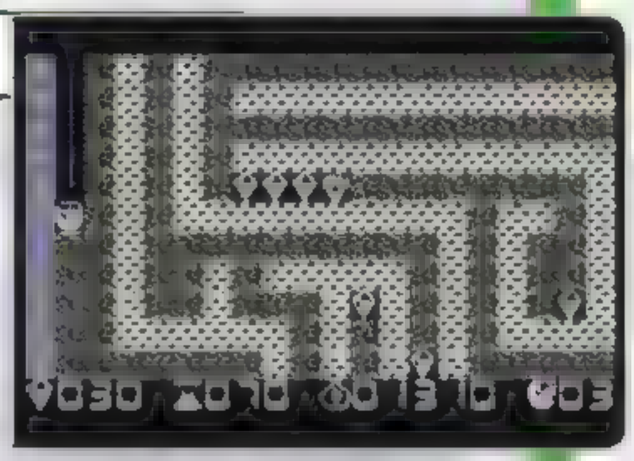
This is a brilliantly original and downright zany one or two-player platformer that also features enhancements for STe owners. You have to bounce your clam around each level, collecting the musical notes so you can take Casper Clam and his band from the bottom of the ocean to the top of the charts!

ANDES ATTACK
> 1988 LLAMASOFT

From the mad mind of Jeff Minter comes this superb *Defender* clone that itself is an update of a Commodore VIC-20 game, which was the very first title to be released under the Llamasoft label. Expect the usual array of crazy speech samples, impressive graphical effects and addictive gameplay.

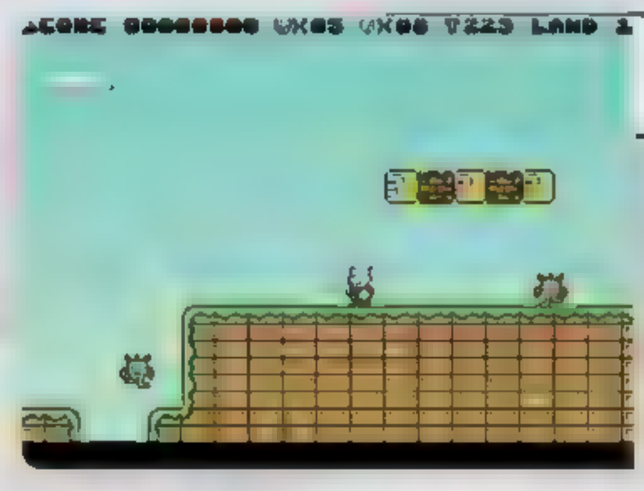
SKULL DIGGERY
> 1987 NEXUS

Another clone of a popular game – *Boulder Dash* this time – and a massive favourite among ST owners. One of the reasons is that the game is played in either medium or high resolution, meaning you could have a cheeky play between knocking out your next chart-topping single on Cubase!



ASTEROIDS DELUXE
< 1987 ATARI

In the early days of the ST, Atari itself released a string of games for the machine. Of these, *Asteroids Deluxe* is one of the few exclusive titles. It's essentially an upgraded version of the superb arcade original, with colour graphics replacing the coin-op's vectors, new enemies and shields.



SUPER STARIO LAND
< 1995 TOP BYTE SOFTWARE

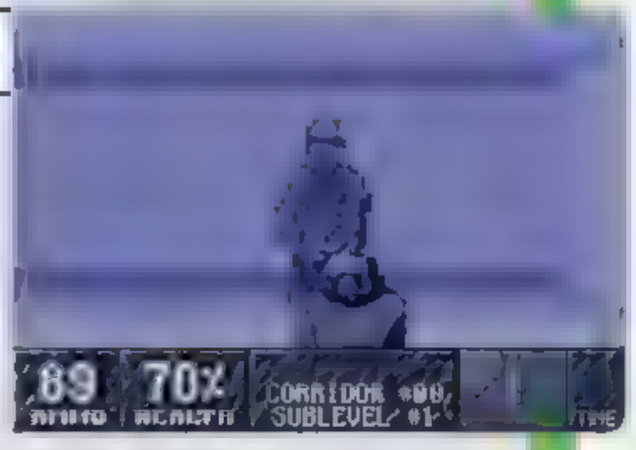
In case you haven't already worked it out, this is in every respect an unashamed rip-off of the *Super Mario Bros* games. That said, it's an incredibly good imitation that not just looks and sounds the part but also captures the tight gameplay that made Nintendo's classic platform series so popular.

CHOPPER-X
> 1987 MASTERTRONIC

We have always had a soft spot for this pretty generic vertically scrolling shoot-'em-up. Probably because it was among the first games one of us got with his ST when he first bought it. This game is particularly notable for having MIDI-compatible music, making it one of only a few games to do so.

SUBSTATION
> 1995 UNIQUE DEVELOPMENT

One of the things that helped the PC-compatibles kill off the ST and Amiga was the arrival of the first FPS games like *Wolfenstein 3D* and *Doom*. This 1995 title from a Swedish software house looked to try to redress that balance somewhat. This is an impressively moody attempt that even features MIDI port link-up.



PENGY
< 1987 RED RAT SOFTWARE

This game is clearly based on Sega's classic arcade game *Pengo* – even the name is similar! But that's no bad thing when the game is just as much fun to play. An early ST game, it features the almost overly bright and colourful graphics that seemed typical of that era as developers got to grips with the hardware's capabilities.

ZERO 5
< 1994 CASPIAN SOFTWARE

This STe/Falcon-only title features probably the best graphics you will see on this home computer. A 3D space shooter with super-smooth polygon graphics and digitised sound effects, it later received a similarly highly acclaimed sequel on the Atari Jaguar that strangely used the same name.

Airball

» ATARI ST » MICRODEAL » 1987

We love videogames based around interesting gameplay mechanics. Take *Airball* for example you play a boy who gets transformed into the titular object after a wizard gets fed up with his trespassing You start off in a pump room and must navigate 249 more rooms in order to find the spell book that will turn you back into a real boy

Sadly, the ball you've now been transformed into has a slow air leak meaning you must reinflate yourself in the available pump rooms Unfortunately, said pump rooms are few and far between, and even when you do happen to reach them there's a chance you'll burst by injecting too much air into yourself

The small number of pump rooms available means that you have to move quickly in order to navigate *Airball*'s 250 rooms It's a great concept, instantly recalling the likes of *Spindizzy* and *Marble Madness*, but it's let down by the rather skittish nature of your ball Regardless of whether you play with keyboard, joystick or mouse, the controls aren't exactly as tight as we'd like them to be, meaning that it's easy to make mistakes or catch yourself on the occational dangerous object

The fiddly controls are a pity as *Airball* features some genuinely solid level design, instantly recalling the clever level layouts of *Knight Lore* and *Alien 8* Certain rooms are deviously constructed and often require lateral thinking in order to solve them, and it only gets trickier to work them out when you're fighting an ever-decreasing timer

Airball isn't the greatest ST game by any means, but it remains a challenging isometric adventure that will test both your wits and your reflexes ★

SCORE
00000

THE SCENE KINGS

What happens when you bring together the best demo scene coders, musicians and artists in Europe to create videogames? Kieren Hawken investigates and reveals the story of Thalion Software

Gütersloh is a town in the Northern Rhine area of Germany, a pretty unsuspecting place that most people have probably never heard of. But it does have one small claim to fame – it was the birthplace of Thalion Software, one of the true innovators of the 16-bit computer era.

Formed in 1988 by Holger Flottmann and Udo Fischer, the idea behind Thalion was to bring together the best talents from the 16-bit demo scene to produce original games for the Atari ST, Commodore Amiga and PC compatibles. Udo was no stranger to the scene himself, as he was part of the famous ST demo group The Exceptions (also known as TEX) under the pseudonym '-ME-'. The first person he brought in to help him was fellow Exception Erik 'ES' Simon, who remembers the birth of Thalion well. "Udo Fischer was a friend of mine with whom I worked on *Dragonflight*, a large-scale RPG, before we joined Thalion as co-founders," he reveals. Erik explains that it wasn't long before many other faces started to fill the office. "Holger brought some ex-Rainbow Arts team members on board and we recruited a lot of friends from the demo scene too."

The influx of staff gave Thalion a great base to start from and, with *Dragonflight*, it already had its first game lined up for release. But it wasn't long before the first big problem of running a big software house reared its ugly head – money! Thalion just didn't have enough of it to even get its own games published and things were looking bleak. Thankfully Thalion came up with a solution pretty quickly, as Erik explains. "We had to sell the company rather quickly to Ariolasoft back then because we just ran out of money."

▸ Thalion gave away huge posters with many of its games showing off their beautiful artwork

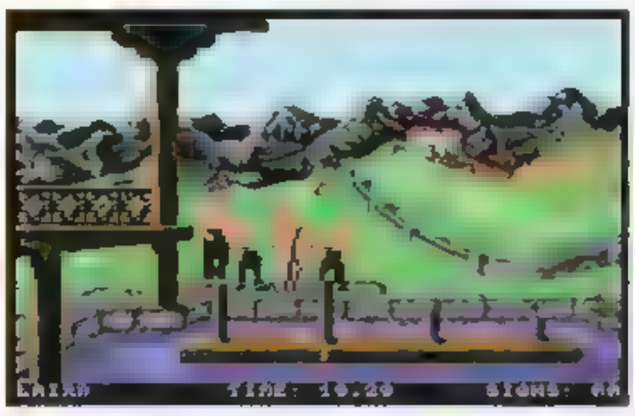
"The company was founded by the best demo makers for the Atari ST, people who pulled off the impossible"

JURE HORNEMAN

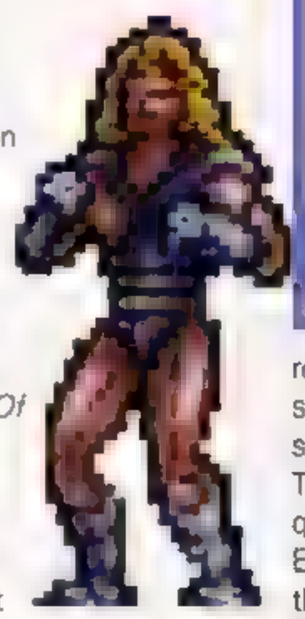
Ariolasoft gave Thalion a chance to get its games out there and, initially anyway, it was happy to carry on letting Thalion do its own thing with very little interference. A distribution deal with Grandslam Entertainment soon followed, which meant Thalion could get its games into the lucrative UK market and onto the shelves of major retailers

Although ambitious RPG *Dragonflight* was scheduled to be Thalion's first game, a series of delays saw it pushed back and *Chambers Of Shaolin* took its place. *Chambers* was a one-on-one fighting game that was reminiscent of Jordan Mechner's *Karateka* in many ways. One of its key features was the way you had to train your fighter before he was let loose. It ended up being released across all three 16-bit formats as well as the Commodore 64 and received generally favourable reviews, a good start for the fledgling company. One thing that soon became prevalent in its early titles was Thalion's attention to detail, with both high quality graphics and sound leading the way. Erik talks about the ethos at Thalion during those important early years. "What made Thalion special was the unbridled passion for the games we made," he reveals. "Back then it was more of an exploration process and the percentage of things in a game that nobody has ever done before was much higher than today. We lived, breathed and dreamed games."

New concepts and genres sprung up all over the place in the 16-bit era and we started to see the same high level of creativity that we saw with the very arrival of videogames. The biggest trick that Thalion had up its sleeve when compared to its rivals was the technical proficiency of its coders. "Most of our team members had roots in the demo scene and squeezed amazing stuff out of the 16-bit systems 50Hz full-screen scrolling on the ST and texture-mapped 3D dungeons on the



▸ *Chambers Of Shaolin* was one of just three games that Thalion released for the Commodore 64



▸ *Lionheart* was a good indication of Thalion's superb sprite design

INSTANT EXPERT

- The company was founded in 1988 by several members of the vibrant Atari ST demo scene
- Thalion's Tim Moss would later go on to join Sony and was the lead programmer on the award-winning *God Of War* games
- *Lionheart*, *Atomix* and *Tangram* have all been updated for modern machines and mobile devices
- Thalion's games were distributed in Europe by well-known UK publisher Grandslam
- The long-lost English version of *Ambermoon* was reviewed by many magazines in 1993 but never released. It can now been downloaded from the Thalion Web Shrine
- *Chambers Of Shaolin* and *Seven Gates Of Jambala* were released for the Amiga CD32 via Unique Software, a subsidiary of Grandslam.
- Jochen Hippel's soundtrack CD was the first ever studio-recorded album of videogame music, some five years before anyone else created one
- A homebrew version of *Atomix* was released for the Atari Jaguar in 2006 by The Removers.
- Thalion was one of the first companies to produce an officially-licensed flight simulator. *A320 Airbus* was written with the help of Lufthansa, Jeppesen and Airbus

DEMO DISK JOCKEYS

How the cream of the demo scene came to be

One of the things that made Thalion unique was that it was formed by members of the best demo scene groups in Europe. The two founders were both members of The Exceptions. They had coders, musicians and artists from The Lost Boys, TNT Crew, Gigabyte Crew, Quartermass Experiment and The CareBears among others. People like Jochen Hippel, Michael Bittner and Fabian Hammer had become heroes to many 16-bit computer fans as they continually pushed the ST and Amiga to do things nobody thought was possible, and this is why Thalion always had a reputation for producing technically brilliant games. Many ex-members of Thalion are still active in the demo scene today and continue to wow audiences at conventions across Europe with their coding skills. One quick search on YouTube will show you just what these people have been able to achieve and the legacy they have left.

▶ Amiga were no easy feats," explains Erik about Thalion's technical edge

Jurie 'Relayer' Horneman was brought in by Erik and heaped the praise on his then boss for what Thalion was able to achieve "The company was founded by the best demo makers for the Atari ST, people who pulled off the impossible. Everyone was really talented, but particularly the programmers. We wanted to make the best games we could, and we did. It was a small team with very strong leadership by Erik Simon, so a lot of problems I've seen later in my career just didn't occur." Jurie also recalls seeing something special the first day he set foot in the office... "During my interview in January 1991, I looked over the shoulder of Michael Bittner and my jaw dropped as I saw a texture-mapped cube rotating smoothly in 3D on an Atari ST, which was supposed to be impossible!" Jurie also remembers having to adjust to game coding after programming for so many years "At some point during the development of *Amberstar* I came to the painful realisation that I would have to use the operating system, which went against my instincts as a demo coder." He even explained his own approach to the process: "Step One: Kill OS. Step Two: Do awesome things But I realised it'd be too much work to manually code support for German keyboards, French keyboards, etc. So I grudgingly started using the operating system."

Jurie's fellow Quartermass Experiment member Richard 'Cronos' Karsmakers was the storyteller at Thalion; he helped design the games and set the scene behind them, and he was in awe of what his colleagues could achieve, telling us, "I worked with the cream of the cream. The top graphics artist (Erik Simon), the best sound programmer (Jochen Hippel of course) and the best programmer ever (Nicolas Thisell). We had a lot of scene respect, that was awesome."

David 'Spaz' Moss was part of the legendary demo group The Lost Boys and made up part of Thalion's overseas crew, having joined the company straight from school. As a 16-year-old boy he didn't really know what to expect on his first day of work. "For me, Thalion didn't really feel like what I had always imagined a proper job would be," he begins. "It was more a collection of like-minded people who enjoyed creating games. Most people who worked there came from similar backgrounds of bedroom coding and art. Although we came from all over Europe we all got on really well." Michael 'Daryl' Raasch was a fellow member of The Exceptions along with Erik,

» Amiga hit *Lionheart* was remade for the PC and mobile platforms several years ago

"For me, Thalion didn't really feel like what I had always imagined a proper job would be"
DAVID MOSS

» Amiga Thalion liked to let the pirates know that it was watching them!

TIMELINE

1988 THE COMPANY WAS FORMED BY MEMBERS OF THE ATARI ST DEMO SCENE IN GUTERSLOH, GERMANY A DEAL IS QUICKLY SIGNED WITH ARIOLASOFT TO PUBLISH ITS GAMES IN GERMANY WITH GRANDSLAM ENTERTAINMENT BECOMING THALION'S UK PARTNERS.

1989 CHAMBERS OF SHAOLIN BECOMES THE FIRST GAME TO BE RELEASED BY THE NEWLY-FOUNDED COMPANY A TRADITIONAL ONE-ON-ONE FIGHTING GAME FOR THE ATARI ST IT RECEIVES FAVOURABLE REVIEWS CONVERSIONS TO THE AMIGA AND COMMODORE 64 FOLLOW THE YEAR AFTER

1990 THALION RELEASES ITS FIRST AND ONLY COMPILATION FOR THE ATARI ST AND AMIGA TITLED THALION THE FIRST YEAR IT FEATURES THE GAMES CHAMBERS OF SHAOLIN, LEAVIN' TERAMIS, SEVEN GATES OF JAMBALA AND WARP AS WELL AS A VERY SMART THALION T-SHIRT

1991 THALION RELEASES A320 AIRBUS, AN EXTREMELY REALISTIC FLIGHT SIMULATOR THE GAME IS DEVELOPED WITH HELP FROM AIRBUS ITSELF AS WELL AS GERMAN AIRLINE LUFTHANSA, AND IS FOLLOWED BY A STRING OF DATA DISKS TO PROVIDE NEW SCENARIOS

THIS YEAR SAW THE DEBUT OF THE FIRST GAME IN THE AMBER TRILOGY AMBERSTAR IS RELEASED FOR THE ST AMIGA AND PC TO FAVOURABLE PRESS THE SEQUEL AMBERMOON IS ONLY EVER RELEASED ON THE AMIGA WITH THE ST AND PC VERSIONS NEVER SEEING THE LIGHT OF DAY THE THIRD GAME IS CANCELLED WITH THE DEMISE OF THALION TWO YEARS LATER

1992 THALION RELEASES ITS LAST GAME FOR THE ATARI ST THE SYSTEM IT BEGAN ON NO SECOND PRIZE WOULD RECEIVE RAVE REVIEWS AND IS STILL WELL REMEMBERED TODAY IT SHOWED THERE WAS STILL LIFE LEFT IN THE OLD DOG YET WITH ITS 3D POLYGON GRAPHICS

1993 THALION FINALLY CLOSES ITS DOORS AFTER IT RUNS OUT OF MONEY BOTH BLUE BYTE AND ECLIPSE ARE FORMED OUT OF THE ASHES, THE LATTER OF WHICH GOES ON TO MAKE A SEQUEL TO THALION'S MOST POPULAR GAME WINGS OF DEATH, CALLED LETHAL XCESS.

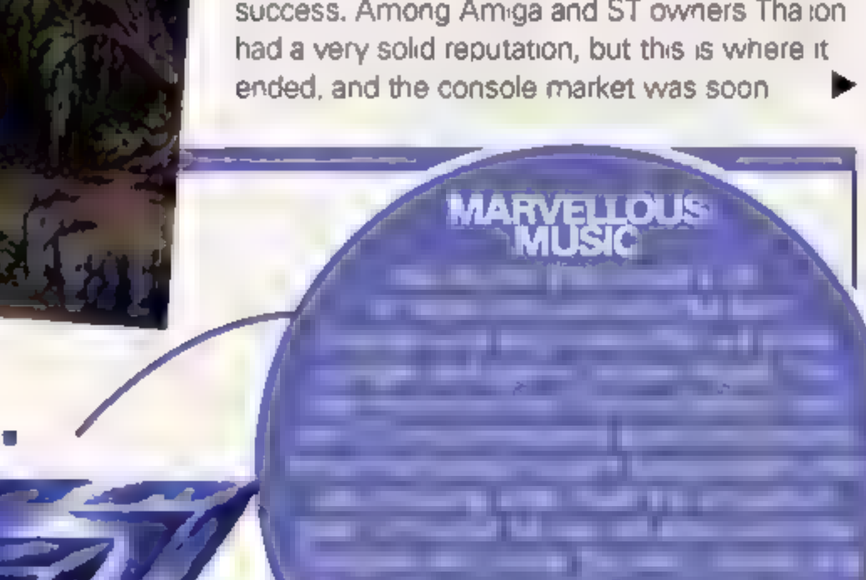
1994 IT IS ANNOUNCED IN THE PRESS THAT THALION IS MAKING A COMEBACK WITH A GAME CALLED X-FIGHTER FOR THE AMIGA A1200 AND CD32 THE GAME RECEIVES GENERALLY POSITIVE REVIEWS IN THE PRESS BUT ISN'T RELEASED AND NOTHING IS EVER HEARD OF THALION AGAIN

1995

Jochen and Udo. He was one of the original people to join Thalion and worked on its first project *Dragonflight*, so we leave the final words on this subject to him. As one of their 'genius' coders he pretty much sums up what made Thalion so special back in the day namely "each individua 's commitment and dedication", adding that "the mix of talented people we were able to attract from all over Europe was simply amazing."

Unsurprisingly, camaraderie played a b g part of Thalion; they didn't just work together, they lived together and remain good friends to this day. And when we say live together, we really mean it, as many of them were even residing in the Thalion building. David Moss in particular remembers his first stay in Gutersloh, exp aining that he was "sleeping on the floor and washing at the swimming pool as the office we a l slept in didn't have any facilities it was just like living in student d gs." Henk Nieborg, being a Dutch resident, was another one who was only too happy to buy into the lifestyle of his new country. "The first half-year when moving to Germany, me and Erwin Kloibhofer resided in the Thalion Gutersloh office. Kind of crazy when you think of it, but it somehow seemed normal to us." Michael Raasch was also no stranger to the experience, proudly recaling the following anecdote. "We lived the dot-com lifestyle, including sleeping bags and big amounts of pizza, even before the term 'dot-com' existed!"

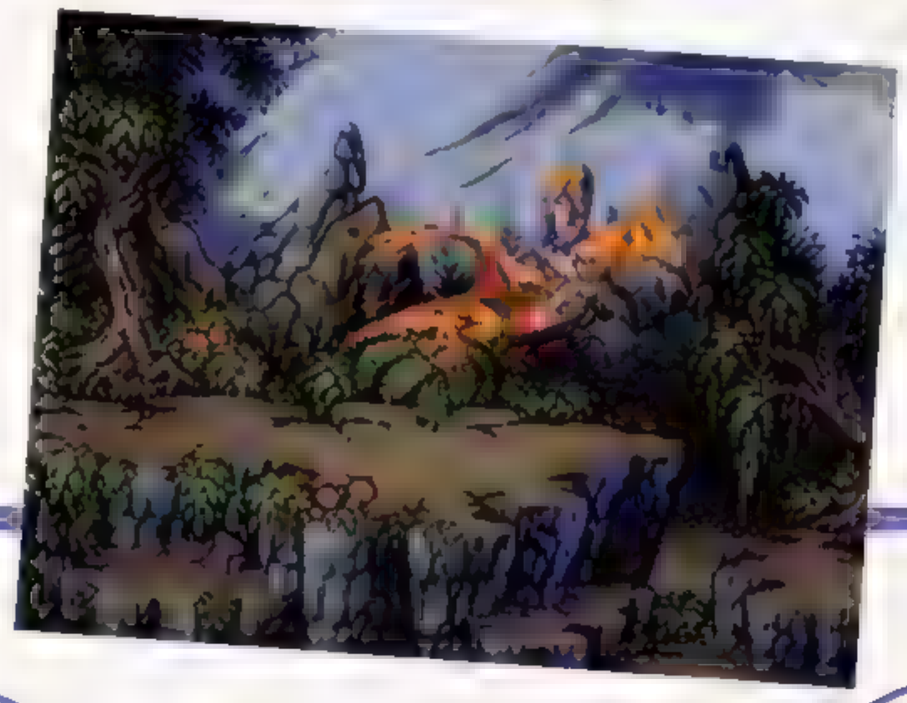
Of course, when you all live and work together, the fun and games ensue, and the 'fax wars' seem to be the stuff of legend at Thalion. This was a game played between all the different groups within Thalion and something that eventually got the group into a lot of trouble! David Moss was quick to chirp up when it came to this subject, telling us, "my best memory was the fax wars with the CareBears, for which we got a right telling off." Richard Karsmakers was in agreement recaling that "summer 1990, was a hot one We spent days and nights working and did 'fax wars' between the local team (The Lost Boys) and a foreign team (The CareBears). We also drank a lot of the divine liquid!" Erik Simon remembers a different contest though:

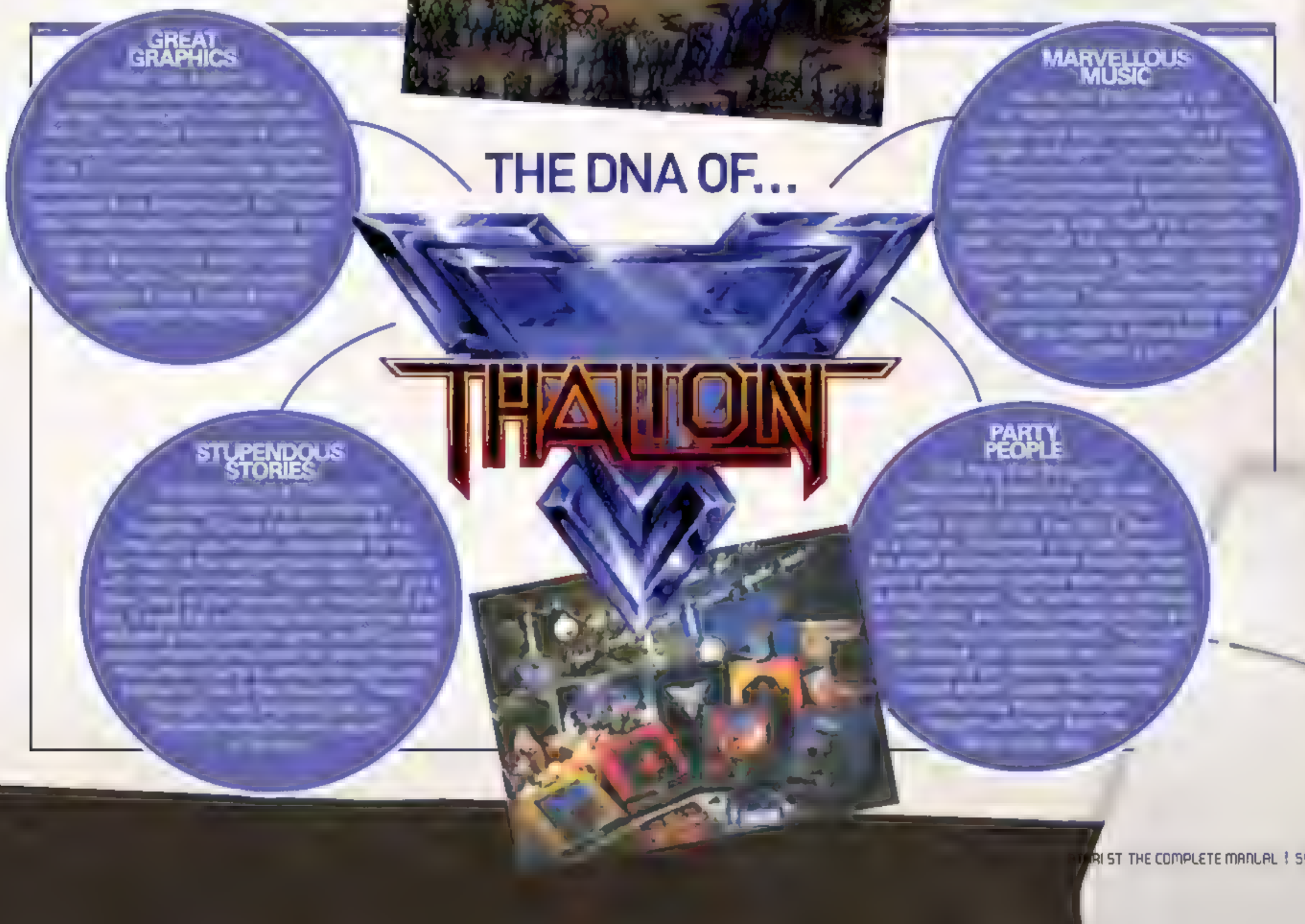


a The less said about *X Fighter* the better we should be thankful the game was never released in the shops

"what about the dirty joke gross-out battle between the Dutch and the Scandinavian guys?" Michael Raasch, on the other hand, offered his own favourite "[t] has to be when Andreas Franz has shown us how to extract the laser tubes from Video-CD players and convert them to laser pointers. We scared the hell out of the Italian pizza bakers opposite the office!" It's clear from talking to the individuals at Thalion that having fun was every much as big a part of Thalion as actualy writing games

Thalion continued to release quality games right into the early Nineties, but one thing had always eluded it: widespread commercial success. Among Amiga and ST owners Tha ion had a very solid reputation, but this is where it ended, and the console market was soon ▶





DEFINING GAMES

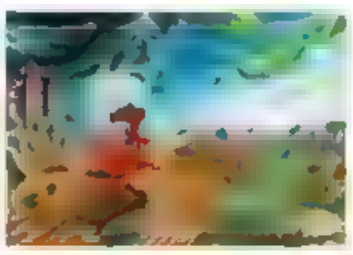
WINGS OF DEATH

Described by many as being the best shoot-em-up on the Atari ST, *Wings Of Death* remains a great example of what the machine can do in the right hands. It automatically detects what type of machine you are playing it on and allocates additional resources such as digital audio, blitter effects and an expanded colour palette for the STe and TT machines. *Wings Of Death* is also particularly notable for its soundtrack by Jochen Hippel that is equally as impressive on the Atari ST as it is on the Commodore Amiga. It was followed by a sequel called *Lethal Xcess*.

NO SECOND PRIZE

Programmed by Christian Jungen, *No Second Prize* is renowned by both Amiga and ST owners as being one of the most impressive examples of 3D polygon graphics on either machine. It features 20 international racetracks, six different racers (each with their own individual abilities) and several unique racing bikes. *No Second Prize* was a realistic simulation of motorcycle racing as opposed to an arcade-style racer like Sega's *Super Hang-On*. The game received rave scores in all the computer magazines of the time and went on to become one of Thalion's most successful games.

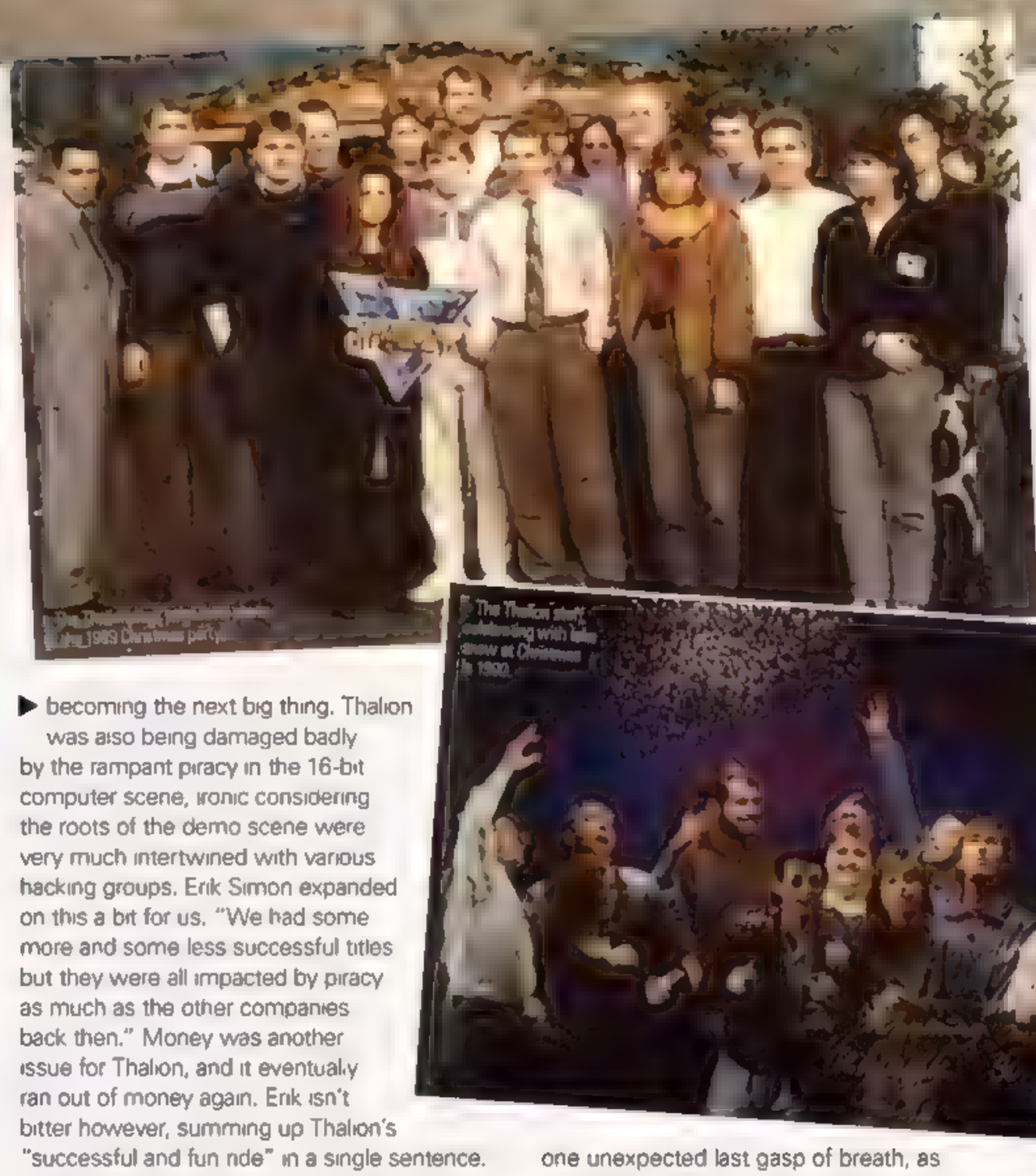
AMBERSTAR



Amberstar is part one of the never completed *Amber Trilogy* and also billed as the follow-up to *Dragon Flight*. The magical Amberstar is a talisman, used a millennia ago to banish the evil demon lord, Lord Tarbos, to the third moon of Lyramion. Split into 13 pieces and scattered throughout the land, your quest is to reunite the Amberstar and defeat the returning danger. The game came with a huge parchment style map and a small novel by June Homeman that goes deeper into the story of the game. The sequel to the game was the equally huge *Ambermoon*.

LIONHEART

Lionheart was unusual for a Thalion game as it was only released for the Commodore Amiga. Designed by Erik Simon, coded by Erwin Kloibhofer and Michael Bittner with graphics from Henk Nieborg it is a stunning looking platform game with a fantasy theme. When *Amiga Power* reviewed *Lionheart* it described it as a "must buy game" and *The One* was so impressed by it that it dedicated four pages to the review and said that it "set new standards for Amiga platformers." The main character from the game also makes an appearance in another Thalion title, *Ambermoon*.



▶ becoming the next big thing. Thalion was also being damaged badly by the rampant piracy in the 16-bit computer scene, ironic considering the roots of the demo scene were very much intertwined with various hacking groups. Erik Simon expanded on this a bit for us. "We had some more and some less successful titles but they were all impacted by piracy as much as the other companies back then." Money was another issue for Thalion, and it eventually ran out of money again. Erik isn't bitter however, summing up Thalion's "successful and fun ride" in a single sentence. "Seven years was quite a long time to survive in those early days, which were pretty Wild West – especially from a project management and business administration point of view." Richard Karsmakers believes the writing was on the wall for Thalion when its owners started to stick their noses in. "I know we were basically owned by Bertelsmann and as commercial success remained elusive, they wanted ever more of a say in the creative process," he explains. "That is when we started doing games like *Airport FRA*, *Atomix* and *Ghost Battle*, which were not done in-house Wolfgang Meier and Willi Carmincke were, to me, the face of that unwelcome influence. At that time Holger (Flöttmann the co-founder) had no say anymore and I recall he wasn't even allowed into the offices anymore!"

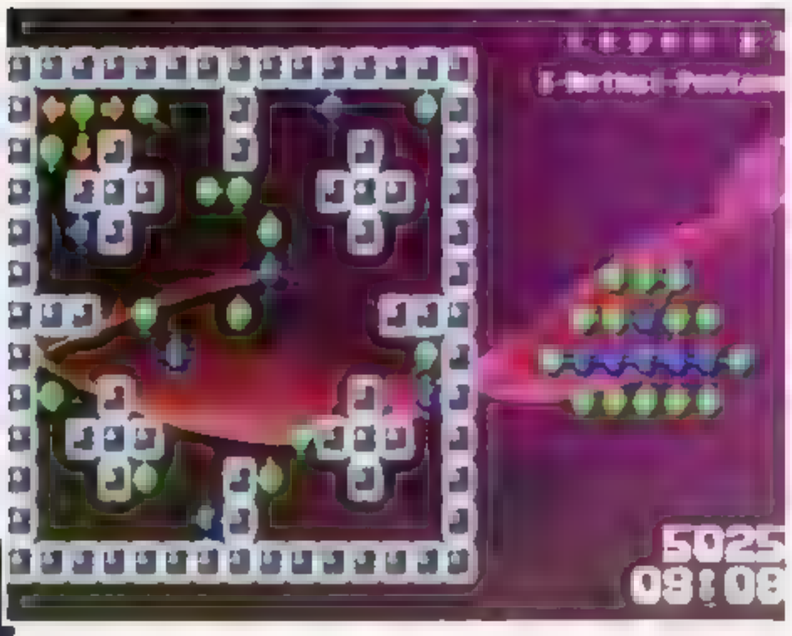
Interestingly this wasn't quite the end of the Thalion story though, as it came up for one unexpected last gasp of breath, as Alexander Holland explains. Although he never worked for Thalion (he was actually employed by Argonaut and was one of the programmers of *StarFox 2*) he is the man behind the Thalion Web Shrine and has done a lot of research into the history of the company. Alexander tells us how Thalion seemed to be making a comeback in 1995 after everyone thought the developer was no more. "There was talk in magazines about Thalion (after everyone had left) going on to publish a game called *X-Fighter*," he begins, before going on to reveal that it wasn't just talk. "There were magazine interviews and even a demo cover disk; this was all done by the remaining management on the cheap." And when Alexander says cheap, he means cheap. "The game was written by a kid in his bedroom in AMOS!" *X-Fighter* was nothing more than a very poor

"Seven years was quite a long time to survive in those early days, which were pretty Wild West"
ERIK SIMON

• Thalion produced some amazing loading screens for its games, typically using an impressive number of colours.

• Thalion gave away this pin badge with some of its games

• *Atomix* was ported to the Atari Jaguar by The Removers in 2006



Street Fighter II rip-off, it looked terrible when compared to the console games of the time and was crucified by the press. So it will come as no surprise to hear the game was never released, and that was the last anyone heard of Thalion. It's a shame that the legacy of a company that prided itself on technical innovation and originality was blighted by such an abomination. We shouldn't let that last desperate attempt by the owners of the name to tarnish the legacy of Thalion however, it deserves much more than that.

Given the talent that was present in the Thalion ranks it wasn't long before they all found new places to deliver their talents. Some joined Erik Simon at fellow German software company Blue Byte, which is now part of Ubisoft and most famous for games like *The Settlers* and the *Battle Isle* series. Former Thalion coder Marc Rosocha (who now heads up EA's mobile division) had already left to form Eclipse and several other people joined him there too. Eclipse went on to produce a sequel to *Wings Of Death* called *Lethal Xcess*, and later became famous for the *Iron Soldier* games on the Atari Jaguar and Sony PlayStation. The biggest success story, though, was Tim 'Manikin' Moss, brother of David, who went on to join Sony and was the lead programmer on the *God Of War* games.

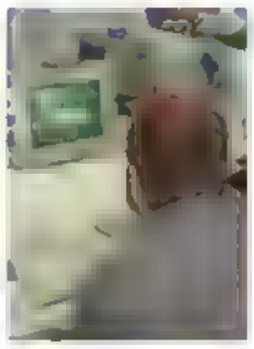
Some members of Thalion even went back to the demo scene and continue to push the 16-bit computers to new limits to this very day. The most elusive of all the Thalion team was Nic Thiesell, who programmed the most technically advanced games effects of the time. He went on to pioneer Java games programming after leaving the company. In 1997 he wrote a version of *Quake* in Java when others were just doing *Solitaire*. id software was so impressed by it that it set its lawyers on him and forced him to remove all the *Quake* assets from the game. It later re-emerged as *Frag Island*, but Nic himself dropped off the map after switching to theoretical physics. Sadly, Jochen 'Mad Max' Hippel left the industry completely after working on *Turrican 3* and is something of a recluse, his talent is a big loss to the videogames world.

Thalion – it wowed Amiga owners with the gorgeous graphics in *Lionheart*, stunned ST owners with the fast 3D of *No Second Prize* and impressed PC owners with the realism of *A320 Airbus*. The real success of Thalion was always the people – the graphic artists, programmers and musicians that made those games possible and their legacy can still be seen today. ✱

Thanks to: Erik Simon, Alexander Holland, Michael Raasch, David Moss, Henk Nieborg, Richard Karsmakers, Jurie Horneman, Jamie Varlese and Darren Doyle. For more information see thalion.exotica.org.uk

WHERE ARE THEY NOW?

Erik Simon



A lot of team members, including co-founder Erik Simon, left to join fellow German software house Blue Byte where they worked on a vast amount of the company's titles. While there he grew into the role of executive producer and then head of development. Erik has been employed in a similar role at several other companies ever since. His last job was building up a development team in Berlin for Bigpoint.

Jurie Horneman

One of the last developers left at the end of 1993, he joined founder Erik Simon at Blue Byte in the beginning of 1994. While there he developed a role-playing game called *Albion*. After that he moved to France (he is originally from the Netherlands) and then to Austria. Jurie worked as a producer at both JoWooD and Rockstar Games before founding his own company, Mipumi Games. After 12 years there and getting married, he moved back to France and is currently living in Lyon working as an independent game designer.

David Moss

Since leaving Thalion, David has continued working as an artist in the games industry for big companies as well as freelance jobs and still really enjoys making game art. Over the last few years he has worked on a number of well-received games including the BAFTA-nominated *Great Big War Game* (iOS/Android) and the recent *Combat Monsters* (iOS/Android/PC), which has been picking up some great press of late.

Henk Nieborg

Henk joined fellow Thalion staffer Erwin Kloibhofer freelancing where they both got hired by Psygnosis. While there they did *The Misadventures Of Flink* for Sega Mega Drive and *The Adventures Of Lomax* for Sony PlayStation. These days Henk is still involved in smaller projects for the Nintendo 3DS and other handheld platforms while also helping out with smaller indie projects, something he enjoys very much. While Henk has also done quite a bit of high-res and 3D stuff, it's classic 2D that still drives and defines him as an artist.

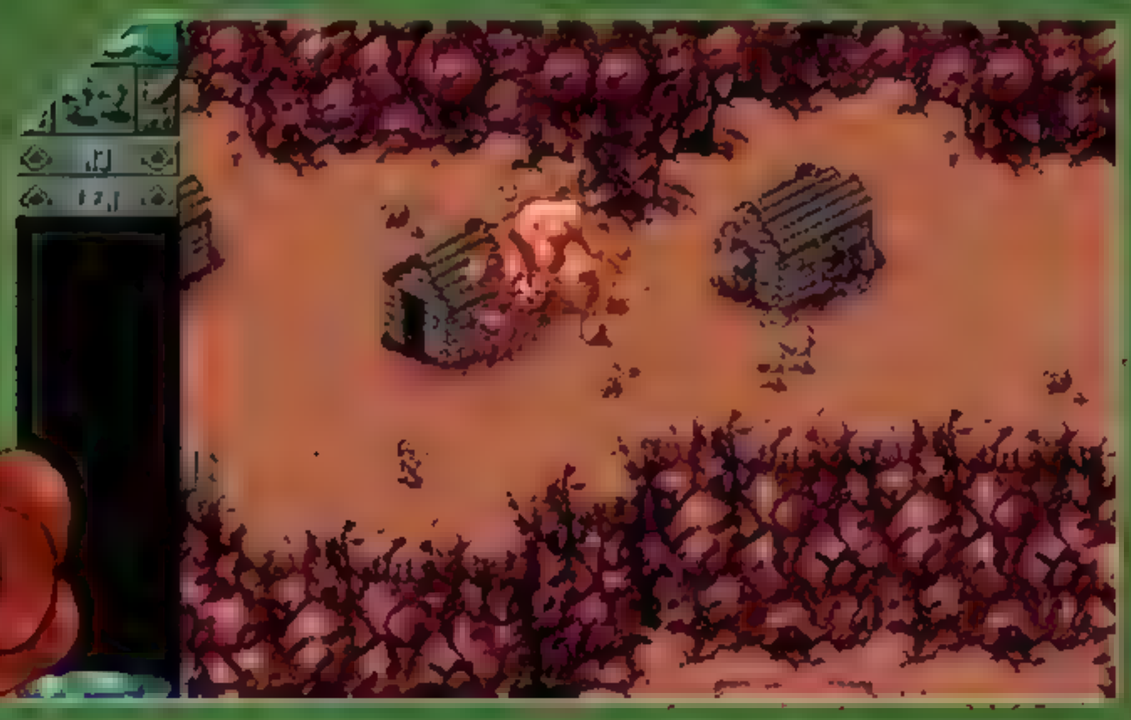
Michael Raasch

After departing Thalion Michael went to Eclipse where we worked on *Lethal Xcess*, the sequel to Thalion's *Wings Of Death*. From there he went to university to study computer science. This then paved a route into investment banking developing trading systems for companies such as UBS and Barclays. Michael is currently working in London for two internet start-ups as co-founder and CTO.

• Henk from *King Of The Hill* goes on holiday in *Tower FRA* on the Amiga.

THE MAKING OF...

CANNON FODDER



Jon Hare, designer of seminal Atari ST action-strategy game Cannon Fodder, explains to Craig Grannell why war has never been so much fun, along with providing an insight into the as-yet-unreleased third game in the series

IN THE KNOW

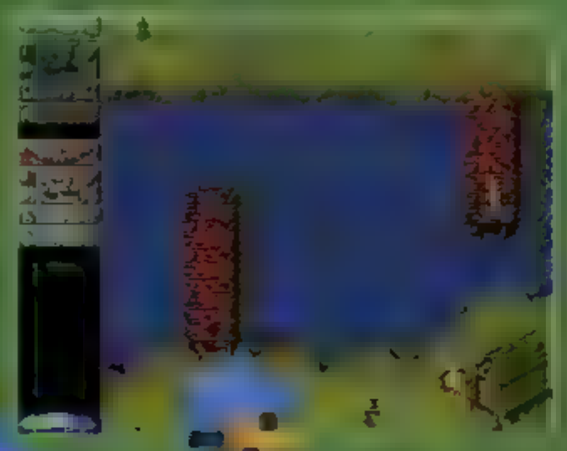
- **PUBLISHER:** VIRGIN
- **DEVELOPER:** SENSIBLE SOFTWARE
- **RELEASED:** 1993
- **PLATFORMS:** AMIGA, CONVERTED TO 3DO, ARCHIMEDES, AMIGA CD32, ATARI ST, GAME BOY COLOR, JAGUAR, MEGA DRIVE, MOBILE PC, SNES
- **GENRE:** ARCADE, REAL-TIME TACTICS AND STRATEGY

52 | ATARI ST: THE COMPLETE MANUAL

Some games rightfully stake their place in history, referred to time and time again as the inspiration behind modern titles. *Cannon Fodder* is not one of them. Despite being one of the earliest titles of its kind, historians are more likely to cite the likes of *Command & Conquer* as leading the real-time tactics and strategy brigade. And yet *Cannon Fodder* arrived two years earlier, combining the unit management of *Lemmings* with the 'considered' bloodshed of *Ikari Warriors* (as opposed to the frenetic *Commando*), lightly wrapping everything up in a layer of deeply black humour. But although *Cannon Fodder*'s story eventually became one of frustration for designer Jon Hare, there's no doubt that the game's development was a different matter.

For the uninitiated, *Cannon Fodder* arrived to rave reviews in 1993, and offered a thoroughly modern style of gameplay. Entirely mouse-controlled, you take a small squad of soldiers on various missions; exploring varied landscapes, blowing things up, rescuing hostages, and driving highly erratic vehicles. The squad can be split into teams, to provide cover for soldiers undertaking more hazardous manoeuvres, and Sensible Software's typically liberal dollops of black humour ensured *Cannon Fodder* further stood out from the crowd.

The game's origins are largely forgotten to Jon today, but he thinks the seeds might have been sown in pre-Sensi days: "Chris [Yates, Sensi's co-founder] and I designed a war game on the back of a wallpaper table. Lots of grids, with various troops and stuff, and some elaborate rules." However, the gestation of the game also stemmed from two other sources during Sensi's early Amiga days. *Mega Lo Mania*, released in 1991, touched on war, if not action, and the team wanted to push the war angle in a new game. Also, experiments with sprite trails proved interesting. "That was the first thing we did for *Cannon Fodder*," says Jon.



Jon on Boot Hill: "The score focuses you on what's going on, and each soldier has a name, which gives them an identity, since people psychologically latch on to names."

"I HADN'T SEEN A GAME UP UNTIL THAT POINT THAT FOCUSED SO MUCH ON THE PEOPLE THAT ACTUALLY DIED, AND THE IDEA THAT IN WAR PEOPLE REALLY DO DIE"

"There was this trail of sprites, which turned into soldiers, and then we got bullets coming from multiple people."

Jon's keen to downplay certain aspects of his creation. For example, he doesn't consider *Cannon Fodder* particularly innovative – "It's not that different from all the old *Rambo*-style games, and it's a fairly obvious and basic combat game" – although he remains proud of the troop idea. He also dismisses praise regarding the mouse-based control method (click to move to a point, right-click to fire, left and right-click to fire a 'special' weapon), noting that we were used to using configurations of buttons to do things in our games, and this was an extension of that, really. It's all pretty obvious."

What Jon's keener to talk about is design, the area in which he feels *Cannon Fodder* is most successful. "Level-design-wise, it's the best game we ever did," he says. "From a design point of view, it's quite calculated. I remember drawing the maps with coloured pencils in a Chelmsford library, and we worked out all of the features of the game at the start – traps, spikes, tanks and things you could climb into. I made a conscious effort to ensure that in every level of *Cannon Fodder* you saw something new." For Jon, this was a key aspect of the game – there's always a reason to push forward, because every level provides something you've never seen. "This might be a new piece of background, a new weapon, or a new experience, but there's always something different. That was important to me, to reward the player for getting past each stage," says Jon. "By adding new features and then mixing up the size of maps, length of missions, number of men, and terrain types, you get variety, but also a sense of progress."

The viewpoint, borrowed from *Sensible Soccer* and *Mega Lo Mania*, combined with tight level design provides a tactical component to *Cannon Fodder*, adding depth over the run-of-the-mill run-and-gun games like *Commando* that peppered 8-bit platforms. Running around gunning down enemies doesn't get you far – instead, you can and must look ahead, decide what to do, determine whether to split the troops, and use all available resources to your advantage. But with so many elements added to the mix, was the game difficult to get right? "*Cannon Fodder* is just another example of a game with a universe that has a bunch of laws attached to it in terms of how everything works. As long as you get those laws solid and take your time, everything sorts itself out," claims Jon.

We ask whether Sensi's usual complete every level once and move on testing method was employed, which he confirms, noting that with *Cannon Fodder*, the team ensured the game mechanics were nailed down and that each level could at least be completed with fairly junior guys. And we then mention mission eight, where the difficulty curve suddenly became a wall. "It's the most ridiculous use of *Cannon Fodder*'s game mechanics, and it's

POP STARS

Richard Joseph then knocked it into shape. "He got all the down, and we added bits and percussion and

Environments were always different, with Jon aiming to introduce something new for the player to each level.

Jops and RJ were annoyed that they only had grenades to lend and not some thick woolly socks.

THE MAKING OF... CANNON FODDER

The finished, *Cannon Soccer* was given away with one of *Amiga Format*'s Christmas issues. Here, you will find yourself battling legions of enraged soccer players!

Join on the console versions, *Cannon Fodder* holds up fairly well on them – not as well as with a mouse, because it was designed for one, but it wasn't a disaster without one.

about not panicking in a crisis," says Jon, adding, with more than a hint of wryness, that it's his favourite level.

Elsewhere, Jon's approach was surprisingly hands-off. With previous titles, he'd been responsible for most game visuals, but Stoo Cambridge took those particular reins for *Cannon Fodder*. "The graphics were based on the style of *Sensible Soccer* and *Mega Lo Mania*, but Stoo added his own style to it," recalls Jon. "He was very much into cartoony stuff, and so some of his humour came through, which is good."

Humour was apparent in most Sensi titles, and Jon considers that the company's approach was to be not too serious about what it was doing, but to keep things clean. "This approach was similar to Nintendo's – the games were fairly humorous, but we were always thorough about making everything polished. Our treatment of *Cannon Fodder* was about as light-hearted as you can get for a war game, while covering a serious issue. I guess it was just our style."

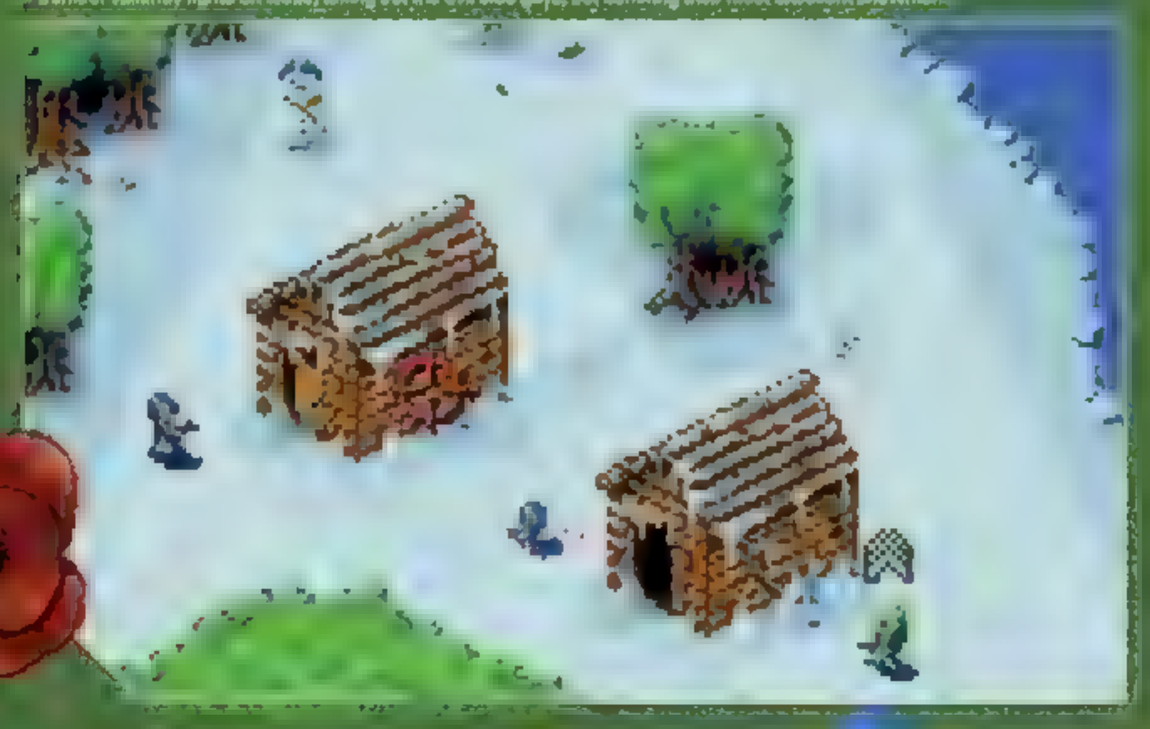
When *Cannon Fodder* was released, Amiga owners bought it in droves. It leapt to the top spot in the all-format charts, and reviewers couldn't heap enough praise on the game, typically awarding scores higher than 90%. Not everyone was as impressed, though: the game's humour and poppy usage hit a nerve. The British Legion was up in arms, and the *Daily Star* started a campaign to sink the game, quoting such gaming luminaries as, erm, Sir Menzies Campbell MP, who waffled: "It is monstrous that the poppy should be used in such a way."

Jon is unrepentant about the criticism that was levelled at the game by such quarters: "What irritated me is that they'd obviously not played it." When we suggest perhaps Sensi was courting controversy, Jon disagrees: "I think we did the opposite. I'd not seen a game up until that point that focused so much on the people that actually died, and the idea that in war people really do die. We named everyone and showed all their graves on the Boot Hill screen. That effect really works for anyone who's played it for any length of time."

He also reveals that for all of its bluster, the British Legion was most concerned with rights issues: "Basically, they were annoyed that we had used their poppy. In the end, they said 'if you give us 500 quid, we'll keep quiet', and so we paid them off." Jon notes that he's never bought a poppy since: "I bought all of my poppies in 1993, and I actually thought f**k them – they come on all moralistic, and you can pay them off with 500 quid." There's a

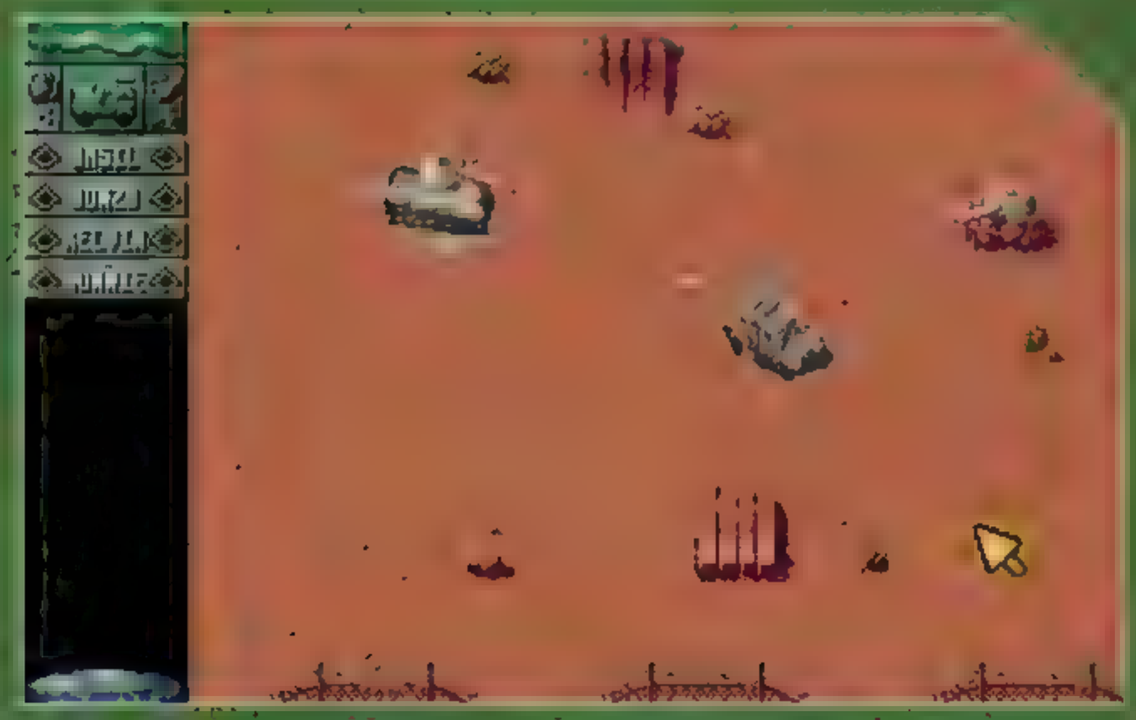
"PEOPLE TALKED ABOUT COMPUTER GAMES BEING THE NEXT ROCK 'N' ROLL AT ONE POINT IN THE PAST, AND OUR APPROACH WITH CANNON FODDER WAS AS NEAR AS ANYONE REALLY GOT TO THAT"

Sensible Software valiantly fights on alone, taking out the evil blue guys, but surviving their most excellent snowmen.



The Sensible Software development team in an all-male military get-up

The names of the fallen are displayed after each mission – perhaps the first videogame to do so. And yet tabloid papers still claimed the game was insensitive to war.



Later levels enable you to hijack about the place in various vehicles, which are borderline uncontrollable.

big lesson there about how companies work."

Although the reaction of politicians and the non-gaming press left a bad taste, *Cannon Fodder* persevered – for a time at least. Conversions for 16-bit consoles in 1994 remained somewhat faithful to the Amiga original, as did the Game Boy Color release in 2000. A sequel also appeared for the Amiga in 1994, with **Retro Gamer**'s Stuart Campbell on level design. "*Cannon Fodder 2* was our first attempt at delegating design elements. Stuart worked with the artist, and the game used the original *Cannon Fodder* engine," says Jon. "To be honest, it wasn't managed as tightly as I'd have liked, in terms of art and level flow, but I think Sensi went through a period of being greedy, trying to capitalise on its success, in terms of how many products were being simultaneously produced. *Cannon Fodder 2* suffered a little because of that."

Sadly, the third game in the series has yet to materialise, despite several false starts, and despite Jon working on *Cannon Fodder 3* being part of the deal he struck with Codemasters when the publisher bought Sensible Software in 1999. "This is a source of great frustration for me, because *Cannon Fodder 3* had a full design – and it's a great design," says Jon, who's only too happy to share what might have been.

The basis of *Cannon Fodder 3* retained the idea of a troop fulfilling objectives in varied environments, but the scope was bigger. "The individual soldiers were brought out more – they were different and there were experts in different fields," says Jon, adding that characters grew with their skills. "And the plot was great – all about being a world peace force, aiming to overthrow six despotic forces around the world, each of which had its own disaster condition, such as successfully building nuclear missiles.

But as you could only fight one at a time, problems elsewhere got worse, raising the difficulty level there."

Jon notes that the concept highlighted the personality of the despots and soldiers, and the game's visuals, which had a kind of 3D Disney-esque feel, would have further brought that to the fore. He also makes comparisons with Bond, talking about tiny *Cannon Fodder* guys climbing mountains, finding experts and adding them to the team, abseiling down the other side, and then meeting a guy coming the other way with a tank. "It was really enjoyable to work on, and it's a pity it never went anywhere," says Jon, adding that he preferred the game to the original *Cannon Fodder*. **Retro Gamer** suggests a visit to Codemasters' headquarters to ask what it's playing at not getting this game out right now, but Jon thinks the series' time has been and gone. "*Cannon Fodder*... it's old now, and I don't know what else you can do. Sometimes, you just have to leave it."

Perhaps *Cannon Fodder* will rise again though, either as a handheld-based remake or an entirely new title, and its rightful place in history will eventually be confirmed, once people realise the American pretenders of the day didn't actually come first. In the meantime, we still have one of the best games ever made to play via various means, and Jon has some great memories of working on the classic Amiga title. "The humour and things like the video we made defined what Sensible Software was about as a company, and I really miss those times when you could just do something like that off the top of your head, and not just get away with it, but people would like it," says Jon. "People talked about computer games being the next rock 'n' roll at one dismal point in the past, and our approach with *Cannon Fodder* was as near as anyone really got to that."

DEVELOPER HIGHLIGHTS

SEUCK
SYSTEMS: C64, AMIGA, ATARI ST
YEAR: 1987–1989

MEGA LO MANIA
SYSTEMS: AMIGA, ATARI ST, MEGA DRIVE, PC, SNES
YEAR: 1991–1993

SENSIBLE WORLD OF SOCCER (PICTURED)
SYSTEMS: AMIGA, PC, XBLA
YEAR: 1994–2007

MAKING MOVIES

"I did a lot of the video stuff, I got a home and edited it. Then again, I did drama at college, and so music and theatre are pretty normal to me."

Illustration courtesy of Dave Rowe

March of the Lemmings

The Complete History of Lemmings

Marching all over the games industry in the Nineties, Lemmings put DMA Design on the map, shot puzzles to almost platform levels of popularity, and did nothing to dispel the myth that lemmings have the lowest self-esteem of all rodents. Lending their lives to the most famous and popular puzzle game series after Tetris, the lemmings came, they died, they conquered

Although March would have been the obvious month to release *Lemmings*, DMA Design's dim-witted rodents officially landed on Valentine's Day 1991. They didn't fall from the sky, as was once hilariously supposed in the 16th Century, but via two blue diskettes for the Commodore Amiga. Such was their popularity, though, that within a year they had migrated from 16-bit to 8-bit machines, computers to consoles; televisions to portable screens. Cliff diving into cold, rocky waters was the only way to escape their little green mops

On reflection, the original *Lemmings* was a genius concept and wholly deserving of the success and popularity it gained. Whereas most puzzle games in the past had been simple but addictive games of matching colours, affixing shapes or completing unfinished tracks, *Lemmings* injected colour, humour and character into the genre. From its squeaky mammalian heroes to its outlandishly themed levels and swinging music, it was a puzzle game that was kitted out in colourful accessories more common to platform games. Capturing the humour and visual style of Eighties games like *Jet Set Willy* and *Monty Mole*, *Lemmings* changed the landscape of the genre forever and became another fine example of quintessential British gaming

Let's go!

The concept of *Lemmings* was created by developer DMA Design (now Rockstar North) Based in Dundee, the studio was established by David Jones, Mike Dailly, Russell Kay and Steve Hammond, and *Lemmings* was the game that helped to put the studio on the map.

At the time, DMA had begun gaining a reputation for producing decent-looking but hair-pulling shooters on the Amiga, in the form of the Psygnosis-published titles *Menace* and *Walker*. And although *Lemmings* was a big departure from the software house's previous frantic titles, its genesis is still intrinsically linked to the shooter genre

While working on the graphics for the game *Walker*, the sequel to *Blood Money*, freelance artist Scott Johnson set about trying to create small human characters for the game's Walker mech to shoot at. This idea led to him designing humanoid sprites inside a 16-by-16 pixel box. Programmer Mike Dailly remarked that the characters could be shrunk down and constructed within a smaller 8-by-8 box and so, armed with an Amiga, one lunchtime Mike set about proving his theory right. Within an hour, he had not only succeeding in shrinking the characters down but animating them too The animation he produced showed one line of characters – at this point they looked like lemmings but had spiky blue hair and wore grey slacks and red shirts – getting squished by a ten-ton weight, while another hapless procession was blown to bits by a gun. Upon seeing this, colleague Gary Timmons then made a few improvements, making the characters move more fluidly and adding a few more death devices to the animation

Another member of DMA who was integral to this tale was Russell Kay. Writer of the PC version of the game, it was he who saw this animation and first commented that there was a game idea in it, ultimately setting the ball rolling. It was also Russell who is credited for christening the characters 'lemmings' and for putting together the first true demo of the game Unveiled at 1989's PCW show, and later shown to Psygnosis, the game's eventual publisher, the wraparound single-screen demo he wrote for the PC showed the lemmings marching from left to right and in their familiar green-haired and blue-bodied colours Incidentally, these colours came as a result of the PC's limited EGA palette, which was only capable of displaying 16 colours on screen at any one time

But while DMA was confident that it had something unique in *Lemmings*, getting publishers to share in its enthusiasm proved to be difficult.

Downhearted but not undeterred, the team continued on without a publisher. It was around this time that David Jones joined the project as lead programmer

Like most classic puzzle games, *Lemmings*' charm and appeal is its simplicity. Based on the myth that lemmings are a suicidal bunch, the game sees a troupe of them enter the stage through a trap door and then begin mindlessly walking with complete disregard for whatever dangers were in their way. The aim of the game was to get all of your lemmings, or the required quotient, safely to the level exit. To achieve this task you had to assign various roles to the lemmings to help them bash, dig, build and even self-detonate their way to wellbeing

Lemmings took DMA around a year to develop, and its quick turnaround was largely attributed to the game's level editor. Inspired by the simple and user-friendly interface of the popular Amiga graphics utility Deluxe Paint, a program with which the team was familiar, it not only allowed levels to be constructed quickly, but also made it easy for each member of the team to contribute and chip in with designs

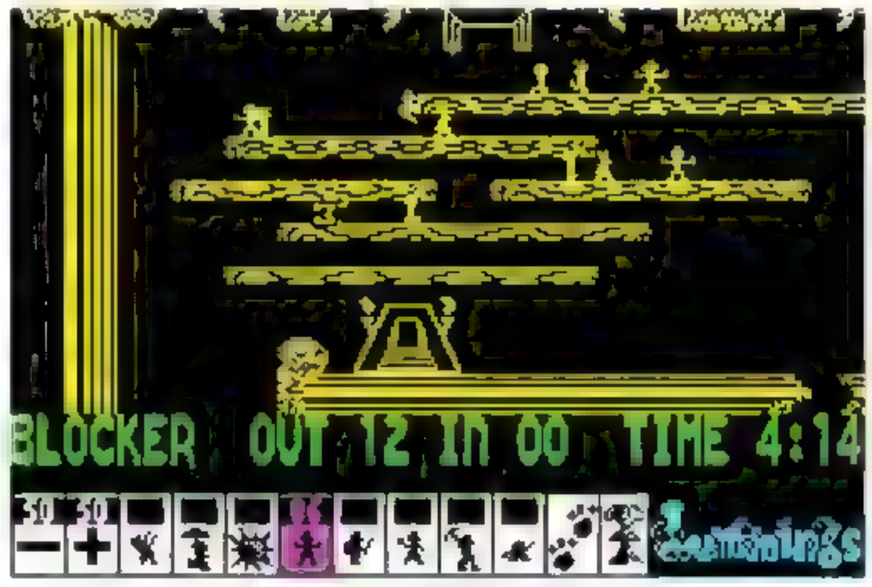
In fact, it wasn't until many of the levels in *Lemmings* were actually finished that DMA finally found a publisher. Turned down initially by Psygnosis at the early demo stage, with working levels the publisher, now able to visualise the concept, snapped up the game. And so, following a period of testing and note-passing between both companies, further tweaks and refining to the game were made and *Lemmings* was finally ready for release. Hitting stores in February 1991, it sold over 50,000 copies in its first day of sales, smashing sales numbers of previous DMA titles. *Lemmings* found widespread acclaim and was praised for its originality and addictive brain-teasing properties

As a result of the reception, *Lemmings* became one of the most ported videogames of all time. Not only did it find release on popular consoles such as the Mega Drive, Super Nintendo and Game Boy, but also machines as diverse as the Philips CD-i, 3DO (in Japan), FM Towns Marty and TurboGrafx-CD. At one time even a trackball-controlled coin-op version by Data East was in development, but, though finished, it never saw release. A US prototype of the game is available to play via MAME, and while we're not sure how close it plays to the intended finished game, what's there plays like a straight port of the original, with the main differences being that it runs a bit smoother, the colours appear muted, and players can select the level on which they wish to start the game

The reason why the coin-op version of *Lemmings* was never released remains uncertain, but rumour has it that the explanation could lie with it not being very well-received during focus testing. It's a theory that would certainly make sense. With arcades more commonly reserved for high-octane, money-grabbing joyrides, *Lemmings* certainly isn't what you would consider typical arcade fodder. Especially as players who got half-decent could potentially be playing for hours on a single credit – hardly a pleasing sight for arcade operators

To capitalise on the game's popularity, DMA and Psygnosis quickly followed up *Lemmings* with *Oh No! More Lemmings* later that year. An expansion pack for the original game, it was released in two forms, a standalone version and data disk format that required the original game to run. *Oh No!* featured 100 new single-player stages and a handful of new multiplayer levels. Like most early expansion packs, it didn't bring anything new to the series and its gameplay keeps to the original eight tools. But while *Oh No!* clearly looked to quickly and cheaply eke more from *Lemmings*' popularity, the level designs don't quite match the quality of those in the original

» An arcade version of *Lemmings* was developed by Data East. While never released, a prototype of the game can be played thanks to MAME.



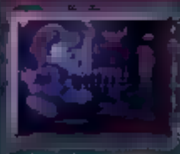
» *Lemmings* even made it to the Spectrum. It might have been fiddly to play in monochrome, but the game's charm still shined through

» *Lemmings* isn't suited to the coin-guzzling instant-action approach of most coin-ops of the time, which makes the fact that it never made it out fairly unsurprising.

> "Once able to visualise the concept, Psygnosis snapped up the game"

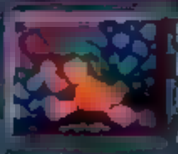
MEET THE TRIBES

SHADOW



This weird shadow tribe are a team of SAS-style operatives who dress like ninjas. Their stages are set in towns under the cover of darkness and are generally full of booby traps and sneaky hazards that only a master spy could outfox. Good thing these guys don't wander blindly into them, then. Oh...

CAVEMAN



It's very much back to basics for this Stone Age tribe, whose land has a prehistoric theme. Their stages are full of volcanic rocks, sticks and fossilised dinosaur remains. There's even the occasional probably extinct creature to lend a hand to the lemmings' plight as they head off on their quest.

SPACE

The most impressive-looking zone in *Lemmings 2: The Tribes* takes place on a space station, replete with shuttles, cranes, space rock and even a cameo from what appears to be the Power Loader from *Aliens*. Sadly, the lemmings can't make use of them. And how is there outer space on this island?

POLAR

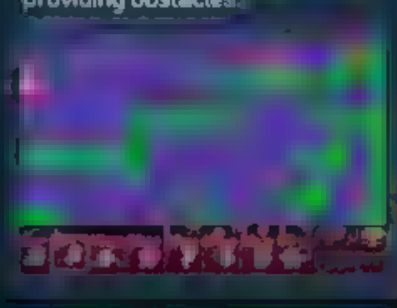
This tribe clearly got the iffy-smelling end of the stick when the lemmings split off into groups. This area is punishingly cold and features stages in which fans of the Christmas spin-off games will feel right at home. The lems on this stage are also a worrying shade of hypothermic blue.

HIGHLAND

Given that DMA Design was based in Dundee, it's understandable that the studio would look to instil its Scottish heritage into a tribe, and so the Highland lems can be seen as a clan designed entirely out of nepotism. Anyway, this zone is based on the weather-beaten glens of the Highlands.

SPORTS

The most nimble and athletic of all the tribes, these sporty types should presumably be the first to reach the island's centre. Their zone is pretty bland in comparison to the rest, featuring artificial turf flooring and various sporting goods strewn around the place, providing obstacles.

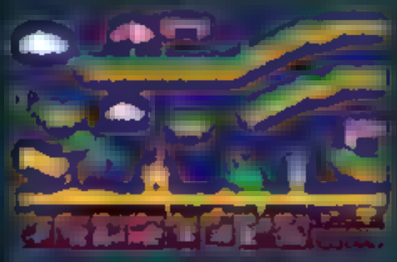


CIRCUS

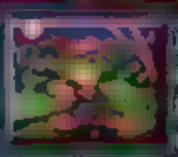
This circus-trained tribe are the most acrobatic of all the lemmings, which is very handy as their zone is full of circus objects to circumvent, including barbells and even cannons for the lemmings to alight and fire themselves from. Pretty dangerous for a place of fun.

BEACH

This tribe certainly lucked out by getting to live out their days in a permanent holiday resort. These sun-kissed lems must negotiate stages littered with beach items and accessories, including beach balls, beach huts and deckchairs. Life for these guys sure is beachy.



OUTDOOR



Given the obvious affinity they have for walking, you'd expect lemmings to be keen ramblers. The great outdoors is the theme for this stage, and features puzzles set inside dense woodland dressed with giant flora and oversized shrubbery. It's a pretty boring place, to be honest.

EGYPTIAN

We think DMA missed a trick by not having the lems walk like Egyptians in this stage. Still, we guess it could have been quite off-putting. This zone is caked in yellow sand, set inside ancient Egyptian tombs, and features plenty of sphinxes and pyramidal structures to circumnavigate.

MEDIEVAL

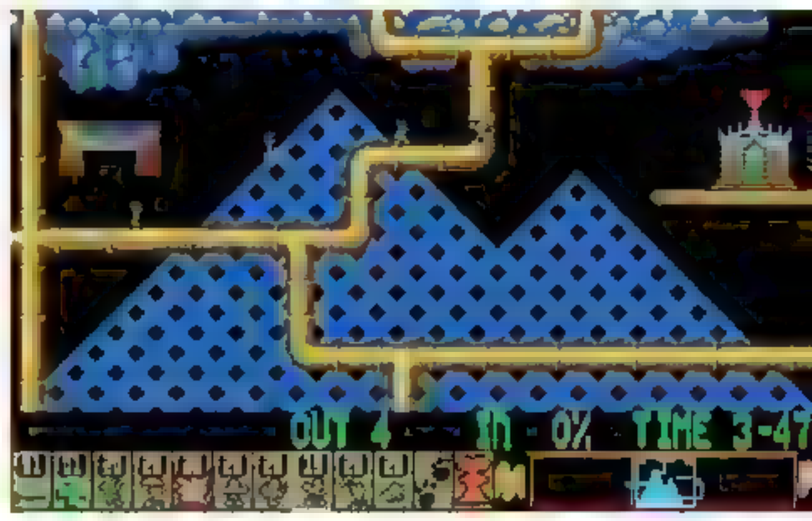
This zone is home to a tribe of lemmings who are clearly stuck in the past because they enjoy a bit of LARPing. Their land is themed to the Middle Ages, and so castles, battlements and ramparts form the theme for this stage. The levels are decorated with uninviting stone gargoyles.

CLASSIC

As their name implies, classic lemmings are a tribe who like to stay true to tradition. Not only are the levels in this zone all reminiscent of those in the first game, but this tribe can only make use of their original eight skills as well. They're also the only lems who can use the Blocker tool.

LEM VS LEM

WHILE WE'VE DISCUSSED the brilliance of *Lemmings* as a single-player game, we shouldn't forget its amazing split-screen multiplayer mode. Comprising 20 stages that were especially designed for two players to go head-to-head in, it quickly proved a popular addition with fans. The mode sees two players competing against each other using their individual tribe, which are differentiated in the game by two colours. Able to only give commands to their coloured lemmings, the winner of the game is the player who successfully manages to shepherd the most lemmings, irrespective of colour, into their goal. Shovelling more tension into the action was the fact that in later stages the two tribes would cross paths, allowing the opportunity for players to interfere with and sabotage their opponent's game. While omitted from the PC version, multiplayer did make it into the Atari ST conversion and a number of the Sunsoft-developed console ports. It's just another aspect that makes *Lemmings* a fiendishly addictive experience, and so we can't understand why, with the exception of *Christmas Lemmings* in 1994, it was dropped in DMA's sequels.



» *Oh No! More Lemmings* was an expansion rather than a full sequel and so offered more of the same for fans of the original.

– and this is also reflected in the erratic complexity of the puzzles. Levels begin as relative cakewalks but soon become torturous crawls across hypodermic needles and broken glass. Or maybe that's just us being dramatic

A tribe on a quest

Given the criticism that *Oh No! More Lemmings* received for not pushing the series in any new directions, there was really only one natural step for a true sequel to take: introduce new abilities and skills for players to get to grips with. Bring on *Lemmings 2: The Tribes*, which did just that

While the core 'guide the lemmings to safety' concept remained, DMA made a number of notable tweaks to the formula in *Lemmings 2*. This included a little over six times the number of skills as were in the original game for a total of 51, and also a story explaining why the critters are once again insisting on risking their little lives in the name of interactive entertainment. The story told that the lemmings from the first game had decided to live out the remainder of their days on the peaceful Lemming Island. Here they divide themselves into various themed tribes, each relating to the 12 territories of the isle. An undisclosed amount of time elapses, and each tribe grows in number and learns the abilities that best allow them to survive in their respective zone. But their peace is soon threatened when they learn that a great darkness is about to spread across the island. To prevent their extinction, each tribe must journey to the island's centre and combine 12 pieces of a sacred talisman to summon a flying boat that will ferry them to safety. It's as good a story as any, we suppose

As well as adding a narrative and an exhausting number of new abilities, the way in which players progressed in the game was also changed. In *Tribes*, completion of a stage only requires players to get a single lemming to the exit. With one saved, any lemmings on screen would then be automatically whisked to the next stage. However, this didn't mean you could sacrifice the lives of 99 per cent of your tribe for the salvation of one. Unlike in the original, their numbers weren't replenished at the start of a new stage. As such, players had to be mindful of a depleting lemming populace, otherwise they'd come unstuck by not having enough lemmings to complete the latter stages in the game. Considerately, the 120 levels were divided into bite-sized batches of ten, and when caught in the crossfire of an explosion or falling from a great height, lemmings now became dazed for a few moments rather than dying outright like in the previous game. The strategy you employ is very often a different approach to the original, as success can be achieved by cordoning off most of the tribe and then allowing a single lemming or a small number of them to venture out and find the exit

While some fans liked this new approach, there were just as many who didn't, and reviews reflected this. Not only did *Lemmings 2* not score as highly, but it also wasn't as successful as the original, although this could have had something to do with it not receiving a fraction of the number of conversions that the original *Lemmings* received

Following the release of *Lemmings 2*, DMA Design then released a festive-themed version. Titled *Christmas Lemmings* (aka *Holiday Lemmings*), it was a short game that was inspired by two earlier freebie Christmas-themed *Lemmings* demos put out by DMA in 1991 and 1992. This year, however, a less charitable DMA cheekily charged fans for its annual *Lemmings* Christmas present, justifying its actions by offering 32 levels. *Christmas Lemmings* reverts back to the look and gameplay of the first game, with the lemmings relying on their original eight skill sets. Dressed in festive bobble hats and Santa suits, the lemmings had to negotiate stages decorated with snow and bunting. Proving a popular spin-off among fans, DMA followed up with a retail sequel the following year. *Christmas Lemmings 1994* featured another 32 Christmas-themed stages, as well as the previous 32 from the 1993 version and a two-player mode

The next sequel not only marked the final *Lemmings* game from DMA before the licence was sold to Psygnosis, but also the final *Lemmings* game for the Amiga and the final true 2D game in the series. Unfortunately, though, it's probably the least popular instalment in the series. Titled *All New World Of Lemmings* (also known as *The Lemmings Chronicles*, though many fans refer to it as *Lemmings 3*), it once again tasked players with guiding the misguided rodents to safety, but both the art style and gameplay were dramatically altered for the game. *New World* featured larger, cuter, cartoon-looking lemmings and a simplified tool interface instead of giving players all the tools they would need to complete a puzzle from the outset, many of the required actions were now scattered around the stages for the lemmings to pick up.

The lemmings now had unlimited use of five basic actions: Block, Run (changes a blocker into a walker), Jump (allows the lemming to hop over obstacles), and a Use and Drop button to interact with the tool objects. Unsurprisingly, many didn't get with the new look or approach. DMA also carried over the previous *Lemmings 2* method of progression, and added further headaches in annoying enemy creatures for the lemmings to avoid. If the classic *Lemmings* recipe was two parts puzzle game to one part platformer, this sequel can be seen as the unsuccessful results of having those measurements switched.

Featuring just three of the 12 tribes, at the time of *New World*'s release it was reported that Psygnosis was planning to release a further three updates to the game, starring the remaining nine. However, likely due to modest sales and middling reviews for the game, the sequels never materialised.

The jump to 3D

Despite the huge impact that the fifth generation of polygon-loving consoles had on 3D gaming, it would be fair to assume that no one would have predicted that *Lemmings* would make the jump to a third dimension. Psygnosis certainly felt that the transition was possible, however, and enlisted developer Clockwork Games to make it happen.

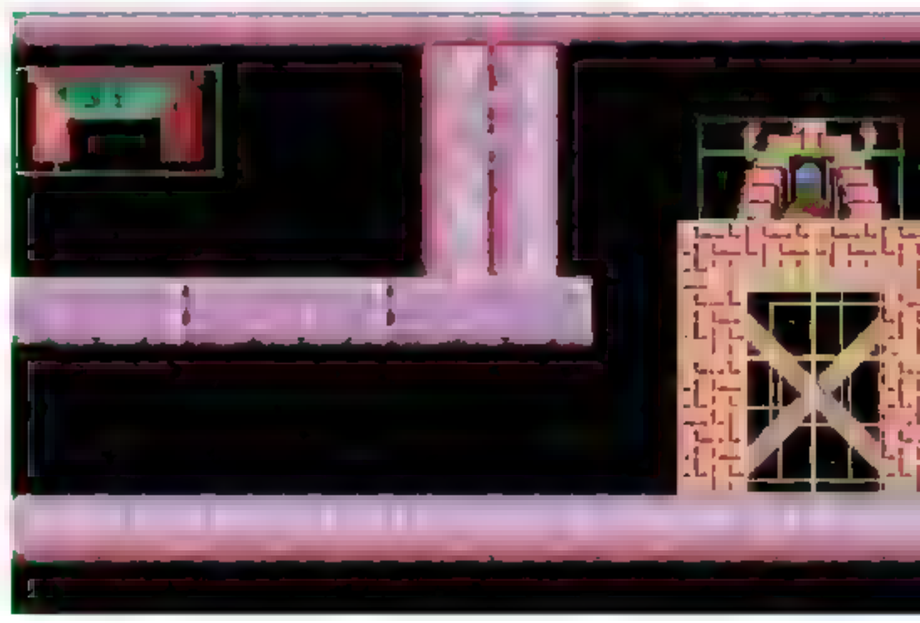
> **"While some fans liked Lemmings 2's approach, there were just as many who didn't"**

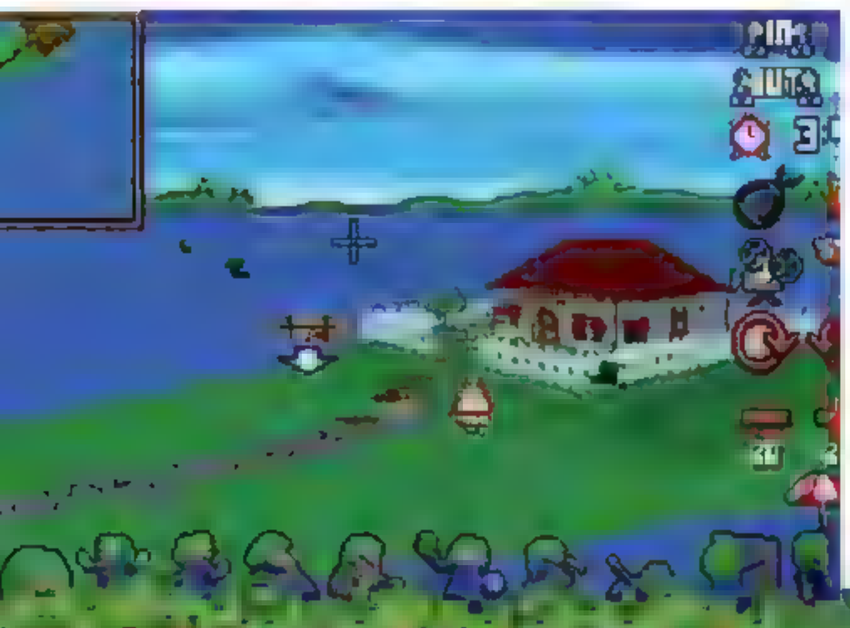
To its credit, in many respects *3D Lemmings* is perhaps closer in 'feel' to the original *Lemmings* than any of the previous sequels. Released for the PC, Saturn and PlayStation, it not only saw a return to the original skills – with the exception of a new and necessary Turner tool, which allowed a lemming to direct their compatriots 90 degrees in either direction – but also some brilliantly clever level design, as well as a return to the original 'save as many as you can' progression.

The biggest thing you have to wrap your head around is learning how to use the game's camera to your advantage – in some instances this is essential to completing the more taxing stages later in the game. Having to think in an extra dimension takes some getting used to, but to the game's credit it seems to understand this fact. Not only does it allow you practice using the various

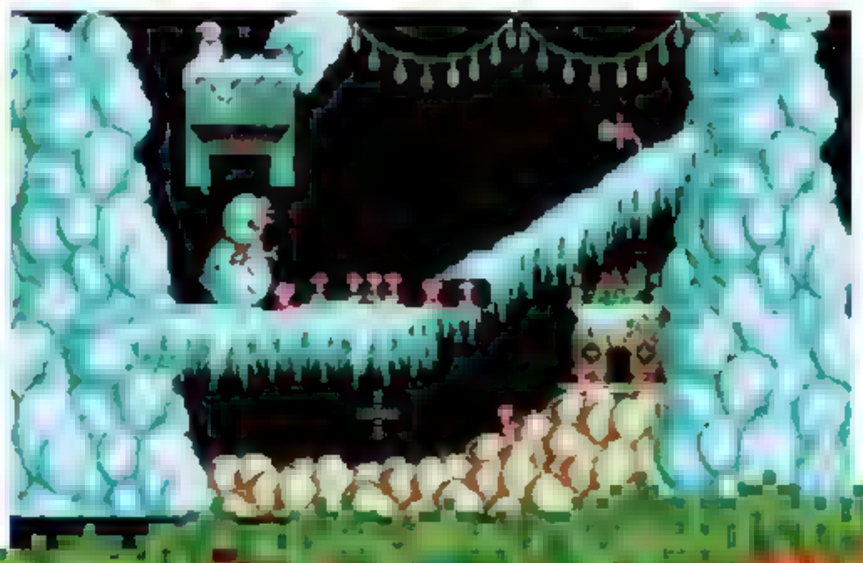
EDIT Be!

AT ONE POINT DMA was planning to include a level constructor with the original *Lemmings*, allowing fans to construct their own stages in the game. However, wary of the time it would take to successfully plot and design a working *Lemmings* level – you can't just plonk a load of rocks and pillars on a stage and call mission complete – the idea was dropped. Fans actually had a long wait until they finally got the opportunity to construct their own levels. The PSP version by Team17, released in 2006, marks the first *Lemmings* game to ever officially include a level creator. However, it's not actually the first level editor for *Lemmings*, as some clever sods took it upon themselves to construct their own. LemEdit and Lemmix are two freeware *Lemmings* level creators for the PC, which allow you to prune and tweak the stages in the original game. Use of them requires you to have a copy of the PC version of *Lemmings*.





» The '*Xmas*' spin-offs were so successful that a total of five were made, including a version for *3D Lemmings*.



THE LOST LEMMINGS

The lesser-known Lemmings games and spin-offs that you may not have heard of

Lemmings Handheld Game
Released by Systema, this portable LCD *Lemmings* game is nothing like the original. It's a scrolling platformer that sees you helping a lemming jump various obstacles and smash through walls with a pickaxe.

Covox Lemmings
This is a special version of *Lemmings* that was produced as a promotional pack-in with Covox PC sound cards. What makes this edition special is the fact that it features an additional seven stages over the original, as well as a special 'Covox' stage.

Lemmings: The Official Companion Book
Given the perplexing nature of *Lemmings*, it was a given that a solution book would sell, and a canny Psygnosis decided to capitalise on the idea quickly by publishing one itself. This particular guide book is unusual, though, in that it came packed with a disk featuring an additional 16 new stages.

3D Lemmings Winterland
This is a 3D version of *Christmas Lemmings* and was packed with *3D Lemmings* during the festive period. The game came on a separate disc and was only included with the PC version. It features six specially designed *3D Lemmings* stages that are all winter-themed.

Vs Lemmings
While it might sound like a standalone *Lemmings* game, *Vs Lemmings* is actually just the fancy-sounding Japanese title for the Game Boy Color port of *Lemmings* and *Oh No! More Lemmings*. Incidentally, this double pack was also released for the PlayStation.

functions and tools – an option introduced in *Lemmings 2* – but it also has a very handy replay mode that recounts your previous attempt and allows you to rejoin at any point, saving you the time and effort of having to redo the bits you know you did correctly. But the indisputable thing that makes *3D Lemmings* awesome is that it's the first *Lemmings* game to finally solve that irritating issue of trying to pick a single lemming from a crowd. Previous games saw you wasting time and tools waving your cursor around a twitching mess of green and blue pixels, hoping that your cursor touched a piece of a lemming facing the right direction and area to make the desired use of the tool you've selected. Here, the problem is solved by allowing you to select any lemming in the game before administering an order. And you can also make use of a handy thing called VL (Virtual Lemming) mode, a function that slots you into the body of a selected lemming and allows you to see what they see

> **"3D Lemmings is closer in feel to the original Lemmings than any of the other sequels"**

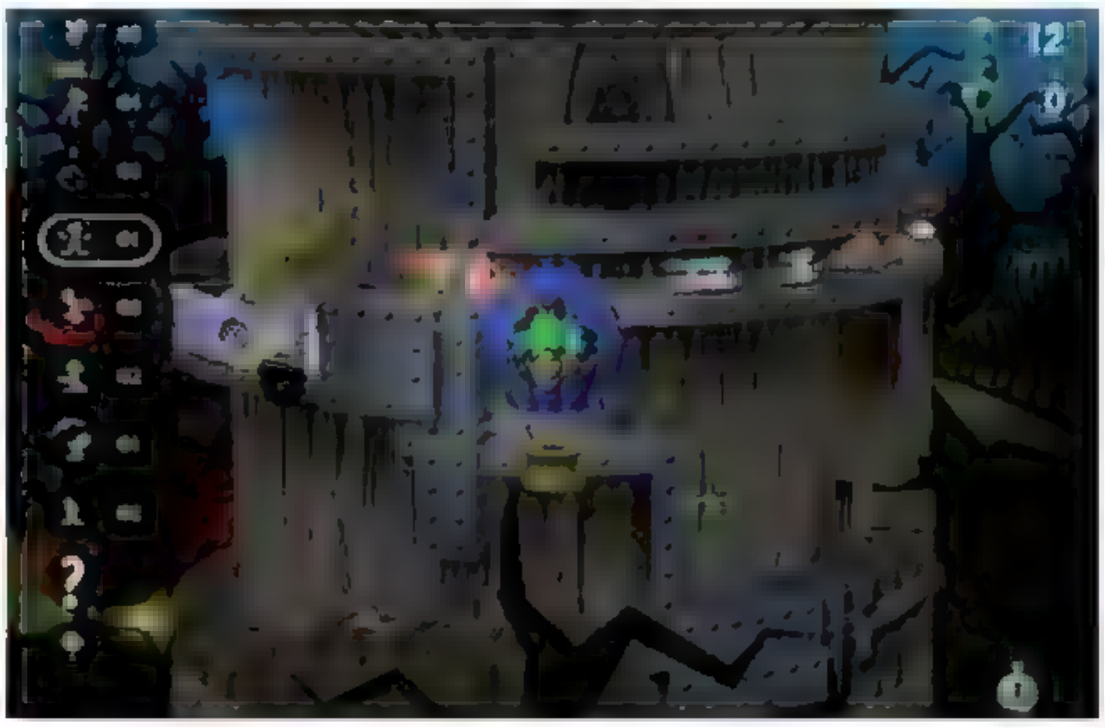
After leaving DMA in 1993, programmer Russell Kay set up his own development studio in Dundee called Visual Sciences. It was here that he and the *Lemmings* series would cross paths again, when Psygnosis asked the studio to develop its next *Lemmings* game. *Lemmings Paintball*, released in 1996, was a big departure from previous titles. Similar in style to *Syndicate*, of all things, the game was a fun but bizarre isometric shoot-'em-up with loose puzzle elements. Assigned a troupe of four lemmings, each armed with a paintball gun, players had to battle an opposing team of enemy lemmings across 100 levels to capture flags scattered around the stages. Players could control either a single lemming or move the team as a complete unit, and certain instances called on the lemmings to interact with switches, catapults and other random objects to get around the level. A first for the series, the game also featured online multiplayer, allowing two people to go head-to-head in a game of capture the flag. Released exclusively for the PC, the game, unsurprisingly, went largely unnoticed

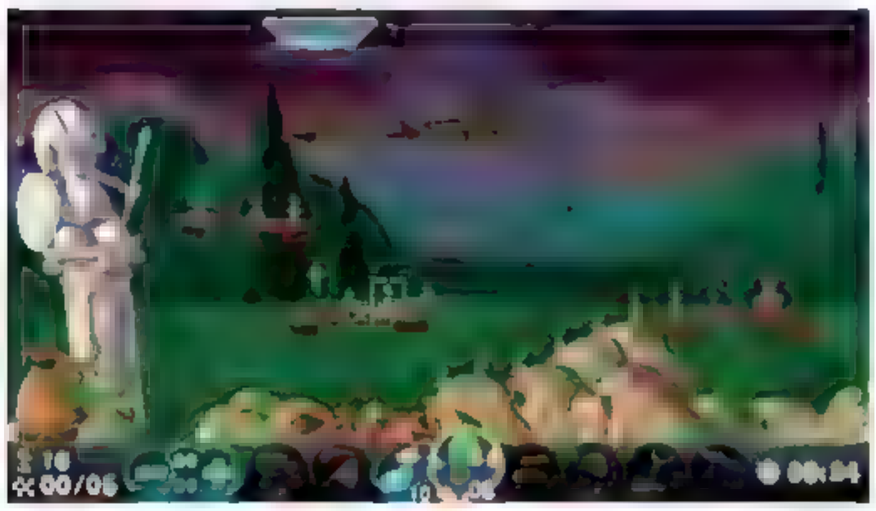
In 1997, *Lemmings* finally made the jump into full platform game territory for the PC and PlayStation spin-off title, *The Adventures Of Lomax* (aka *Lomax*). Co-written by Erwin Kloibhofer and Henk Nieborg, whose previous collaborative efforts included the Psygnosis platformer *Flink* and the Amiga hack-and-slash *Lionheart*, *Lomax* was typical of the duo's previous games, boasting stunningly vibrant visuals coupled with solid gameplay

Players assume the role of the titular Lomax, a lemming from the medieval tribe who must embark on a quest to save his pals, who have all been transformed into enemies in the game by an evil alchemist. In a nice wink to classic *Lemmings*, Lomax has the ability to pick up and make use of a number of different practical powers in the game, some of which were clearly influenced by the traditional tools of his trade. While *Lomax* does fall into the realm of standard platformer, it's a wonderfully presented game with visuals very reminiscent of Ubisoft's *Rayman* series, and is certainly worth tracking down if you're a *Lemmings* fan

The next *Lemmings* game to find release was developed by Take-Two Interactive. Released in 2000, *Lemmings Revolution* was another PC-only sequel that was clearly more inspired by the original *Lemmings* than the sequels. The big difference here is that levels are wrapped around a cylinder, which the player can rotate to get a full perspective of its dangers and pitfalls. The footprint of the original can be seen throughout *Revolution*, with the original eight tools once again making a return and its 3D visuals capturing its iconic ant farm look. Moreover, other additions and changes that *Revolution* makes are really quite subtle. In addition to classic lemmings you now have water and acid

» The gorgeous looking platform game spin-off, *Lomax*, still made an effort to pay homage to the classic gameplay of *Lemmings*.





variants, which can swim and survive a bath in the acid respectively. Also introduced are various environmental objects for the lemmings to interact with. These include speed-up and anti-gravity panels, floors that break away, and even teleportation portals. *Revolution* also unfurls via branching stages. This means that if you do get stuck, just like in the Gold Run in *Blockbusters*, you could progress via a different route to finish the game. *Lemmings Revolution* ranks as another strong entry in the series. It successfully walks that delicate line of feeling fresh and playing faithfully to its source.

The final true *Lemmings* game was first released in 2006 and in many ways came to prove what most had known all along: the original *Lemmings* is the best in the series. Developed by Team17, *Lemmings*, as its title implies, is a remake of sorts. But one that features 36 new levels on top of the original 120 and a level editor – a first for the series, at least officially – which, while a little cumbersome, allowed players to create and share stages.

Given Team17's renowned background in the puzzle genre with its *Worms* series, it should come as no surprise that 2006's *Lemmings* is another strong sequel in the canon. Clearly influenced by the cartoony art style of *Worms*, aesthetically it blends both worlds together.

A PS2 version of *Lemmings* was also released in the same year. Known as *EyeToy: Lemmings*, this spin-off added a number of levels that supported gesture recognition through Sony's webcam accessory to allow players to use their body to bridge gaps and shepherd the lemmings to safety.

A third downloadable PS3 version of Team17's *Lemmings* update also saw release a year later on PSN. Keeping the same art style as its portable and PS2 counterparts, this port only featured 40 levels – all of which were new, however – and the multiplayer and the map editor were also dropped. On top of this, it also fiddled with the gameplay by dropping some of the tool power-ups into the actual levels, in a similar style to *All New World Of Lemmings*.

Looking back at the series in its entirety, it becomes clear that *Lemmings* is a franchise that showcases the difficulties faced by developers if they get a concept so wonderfully tight and perfect first time round. It's arguable that most of *Lemmings*' charm, success and popularity comes from the potent hangover from how innovative the game felt back in the early Nineties. The problem, as anyone tasked with following up *Tetris* will attest, is that it was always going to be impossible for any sequel to replicate its impact. For DMA and Psygnosis to not push the franchise in new directions would have been sending the lemmings to their doom. As a result, that wonderful formula of the original was tweaked, and so with each new sequel, and every new idea added, inevitably some aspect from the original was either lost or dropped. We guess you could dispute the notion that the little critters were doomed the minute the trap door opened and they fell into 'Just Dig' and burrowed themselves into our hearts. Maybe lemmings are suicidal after all.

Special thanks to **Andrew Madsen** of Lemmings Universe (**www.lemmingsuniverse.net**) for his help and assistance with photos and images. Also to **Ian Barlow** for his *Lemmings* skills and knowledge.

CLASSIC MOMENTS

Populous

PLATFORM: ATARI ST • **DEVELOPER:** BULLFROG • **RELEASED:** 1989

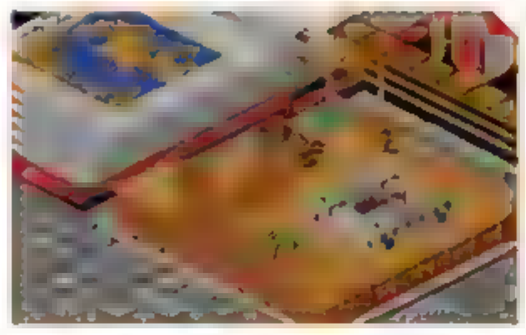
Bullfrog's *Populous* remains a highly satisfying strategy game. This in part is due to the sheer amount of carnage that you can cause to your rival's subjects in order to gain the upper hand. One of the most enjoyable ways to do this is to unleash natural disasters on your unsuspecting opponent. Only there's nothing natural about the disasters in *Populous*, as each one is an act of the gods. But as with the ability to knight a leader, causing a disaster only becomes possible after achieving the required level of power. Once suitably omnipotent, though, you have the means to cause earthquakes, volcanoes and floods within your enemy's territory. You can even turn their followers' evergreen crops into treacherous swampland.

BIO

Populous is credited as the original 'god game', as the title pioneered a genre where the player has divine power over a virtual population. Earlier games had certainly allowed you to play god, but there's no doubt that *Populous* established an entirely new form of gaming. The title began life as a landscape routine developed by graphic artist Glenn Corpes, who found inspiration in the isometric puzzler *Spindizzy*. Glen's project was a solution looking for a problem, however, until Bulldog co-founder Peter Molyneux decided that the scrolling vista needed some little people. The rest, as they say, is history.

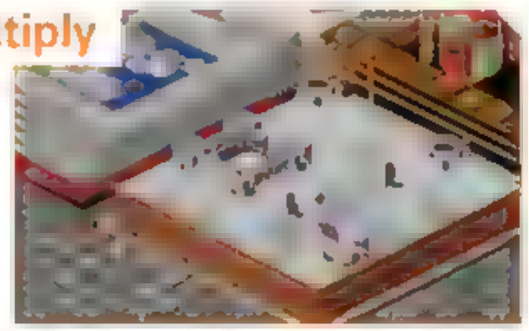
MORE CLASSIC POPULOUS MOMENTS

Raising the land



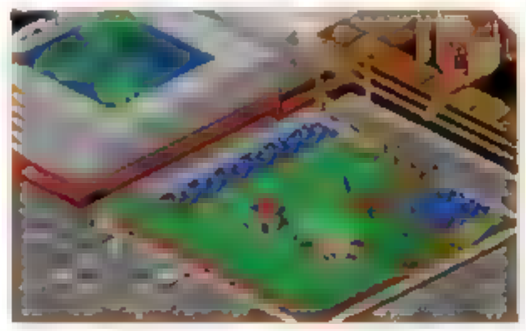
Before you recruit large numbers of followers, your godly abilities are somewhat limited. You can raise and lower the ground, but that's about it. So, the game's first moment of real satisfaction comes from levelling an area of land large enough for your devotees to build their first simple dwellings on. This sense of achievement only grows as your hard work allows your people to expand and develop into a thriving community.

Go forth and multiply



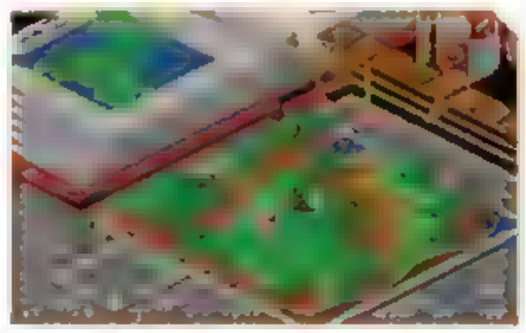
Populous revolves around a war between yourself and another god, but you won't defeat your opposite number unless you match or surpass their power. A god's power is based on their number of believers, and so the key to victory lies in producing more. Population growth happens naturally but, to speed things up, you can reduce a castle's crops in order to persuade people to leave and populate another area.

Arise, Sir Knight



The early stages of *Populous* require construction, as your loyal flock build homes and swell in number, but as your following and power increases so does your capacity for destruction. The leader of your people plays several important roles in the game, but none more so than when you knight him. Once knighted, he heads straight towards enemy territory, burning your opponent's buildings and killing their inhabitants as he goes.

Armageddon



Populous is all about proving yourself the greater of two deities, and there are several ways to go about it. The more satisfying, and certainly the most iconic of victories is won by initiating Armageddon. Once invoked, both populations fight to the death in the centre of the world. But, as you have no control over events, it's vital that your forces outnumber those of your opponents in order to avoid annihilation.

CLASSIC GAME

SPEEDBALL 2: BRUTAL DELUXE

Forget golf, cricket and even football. Not one of them can hold a candle to the thrills and kills of Speedball: the greatest sport to never exist. With perfect playability and a ground-breaking soundtrack the ST's Speedball 2: Brutal Deluxe was the classiest of all future sport games and an instant hit with 16-bit gamers. Ashley Day takes a look at the two-player classic that packed more action into a three-minute game than most titles did in 100 hours

The original *Speedball* was only the Bitmap Brothers' second title but, by 1988, it had already established them as Atari ST developers to keep an eye on. The *Rollerball*-inspired 'future sport' combined the Bitmaps' trademark steely graphics with brutally violent gameplay to create one the most loved game of its type. That was until 1990 when, with a cry of "Ice cream, ice cream", *Speedball 2* thunderously arrived on the scene

At the time it was difficult to imagine how the Bitmap Brothers could improve on *Speedball's* formula but *Speedball 2. Brutal Deluxe* proved to be better than its predecessor in every way. The presentation was 'maxxed out' and the playability (especially in two-player mode) was tuned to perfection. The improvements were so well implemented, in fact, that the Bitmaps have since failed to better them and the game has remained one of the most enjoyable on the Atari ST despite many claims to the future sport throne from lesser contenders

Though *Speedball 2* featured several enhancements to the original gameplay, it was the presentation that immediately stood out upon loading up the game. Player animations were particularly impressive with victory celebrations and tackles that looked amazingly fluid. Best of all, when a player jumped into the air to catch the ball, the immaculate sprite-scaling effects gave the impression that they would jump right out of the screen. Dan Malone's classic metallic art style created a look that *Zzap! 64* magazine ingeniously described as "a kind of neo-fascist brutalism", a graphical style that was as intimidating as it was amusing. It

IN THE KNOW

PUBLISHER: IMAGE WORKS

DEVELOPER: BITMAP BROTHERS

RELEASED: 1990

GENRE: FUTURE SPORTS

It may be over 18-years old now, but few, if any sports games have been able to capture the sheer competitiveness that took place in *SpeedBall 2: Brutal Deluxe*.

"THE IMPROVEMENTSTO SPEEDBALL WERE SO WELL IMPLEMENTED THAT THE BITMAPS HAVE SINCE FAILED TO BETTER THEM AND THE GAME HAS REMAINED ONE OF THE MOST ENJOYABLE ON THE AMIGA"

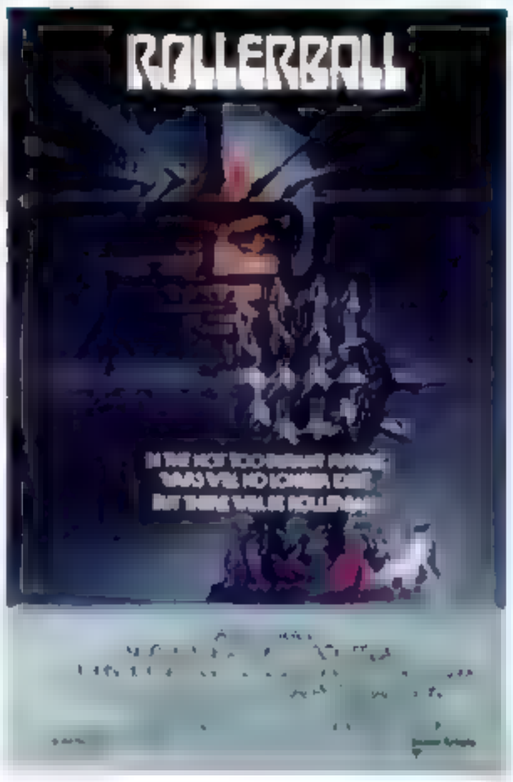
was uniquely appropriate for a game that allowed players to have fun by repeatedly attacking an opponent until they collapsed and had to be carried off by a couple of robot stretcher-bearers. As well as benefiting from the Bitmap Brothers' usual high standard of graphics, *Speedball 2* was also a pleasure to listen to. Nation 12's pounding Drum & Bass theme tune set a tone that felt futuristic for the time (though it now sounds very much a product of the early Nineties) and Richard Joseph's sound and speech effects created a sense of actually being in a real stadium as the cheers of the crowd were just audible over the sound of bones breaking on the play field. While most sports games had a generic crowd noise that was indistinguishable from the last, Joseph spiced things up a bit by adding plenty of incidental speech, such as the now infamous call to buy ice cream, as well as "Get your hotdogs here" that appeared in subsequent versions of the game.

This time around Speedball's play field was much larger and the team size had increased from four players to nine. The greater number of players encouraged more passing, rather than running with the ball, and created more opportunities for violent tackles. Extra features on the play field were also added to increase the number of possible ways to score and to add variety to ball movement. Stars on the wall lit up when hit and awarded two points or ten if all five were activated, a ramp awarded a score multiplier if a ball was rolled up it, warp gates transported the ball (*Pac-Man* style) to the other side of the room and the Electrobounce electrified the ball and shocked the first player it touched. In addition to these numerous improvements a range of pick-ups, such as the tokens that froze the opponents or reversed the other player's controls, added a random element to proceedings and were often instrumental in gaining the upper hand. A bug from the original *Speedball* that made it difficult to keep possession of the ball whilst traveling down-screen, was removed from the sequel and opponent AI was subtly tweaked to improve the one-player experience.

The Bitmap Brothers had made numerous improvements and each and every one paid off handsomely. Speedball had become a finely tuned competitive sport that worked so well that most players wished it was real. The computer controlled opponents played just as aggressively as the player and ensured that the difficulty level felt just right. Those players who hogged the ball wouldn't get far as they soon become the target of a deadly sliding

THE INSPIRATION

It was quite common for classic games to take their inspiration from Hollywood movies. *Barbarian's* main character bore a striking resemblance to Arnie's Conan, *Alien Breed* ripped off the titular monsters from Ridley Scott's *Alien* and *Speedball* took its sport from *Rollerball*. Directed by Norman Jewison and starring James Caan; *Rollerball* rose to instant cult status in 1975 thanks to its ultra violent scenes and pseudo-political theme. It was pulp viewing in the most typical way: a simplified political 'message' wrapped in glorified action set pieces. Though the players in *Speedball* never wore roller skates and there was definitely no moral subtext (to our knowledge at least), the rest of the iconography was remarkably similar: the costumes were identical and the ball was the same size and texture. Now if only the Bitmaps had put a motorbike in the arena...



• None of the participants in *Speedball 2* were particularly handsome. Still, when you're taking part in a match that's the equivalent of entering a warzone, you're not going to look like an extra from a boy band

"WITHOUT DOUBT THE BEST TWO-PLAYER GAME SINCE KICK OFF II, PACKED WITH VIOLENCE AND SPEED THIS CAN'T FAIL TO BE A HIT"

96% ZZAP! 64 ISSUE 71

"WHILE FOOTBALL AND GOLF SIMULATORS CONTINUE TO SELL IN THEIR MILLIONS, IT IS THIS SMALL BUT PERFECTLY FORMED FICTIONAL GAME THAT HAS WON THE MOST HEARTS"

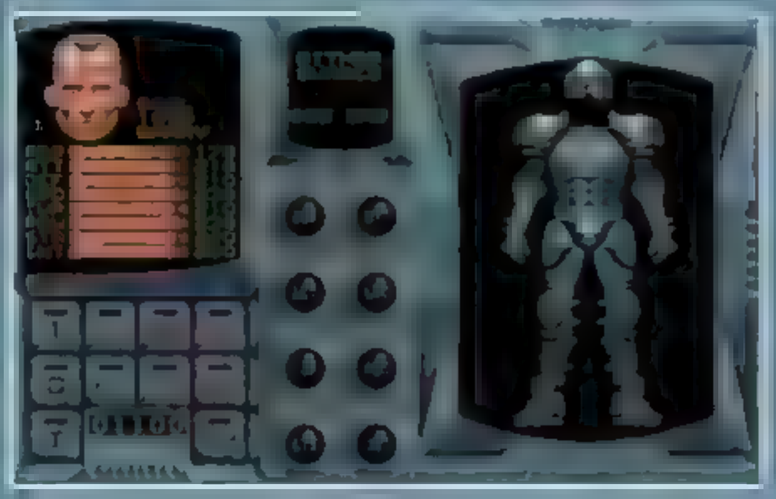
tackle, and even passing was risky as the ball could easily be intercepted. *Speedball 2* never felt unfair though as the CPU players could never do anything that a real player couldn't: If you played aggressively and skillfully enough then you could beat any team. The enemy AI wasn't the only thing that made *Speedball 2* a great competitive game though; the real masterstroke of the Bitmaps' design was the incredibly short playing time of each match. With only 90 seconds given over to each half it was unlikely that the player would score many goals and the tension would soar whenever the ball came within scoring distance of the goal. The quick match time meant that tactical play and quick thinking were essential. Why pass directly between players, for example, when you could bounce the ball off a star and score two points in the process?

Complementing the excellent gameplay were a wealth of different play modes that offered superb customisation. Those who wanted to quickly dip into a single game for 180 seconds of intense balling were able to, but the option was also there to push the team through the ranks to the top of the Speedball league thereby prolonging the length of the game for several months Cup and League modes were available to keep Atari ST owners occupied for an afternoon or a few weeks respectively, and were punctuated by management sessions where new players could be bought and existing ones trained. Yet, no matter which of the play modes were selected, *Speedball 2* remained compulsively addictive

But what really made Speedball 2 so memorable was undoubtedly the unrivalled two-player mode. Add a friend to the mix and the perfectly balanced gameplay came into its own. Two equally skilled players would often finish a game on a tie, especially if they opted to go for the multipliers. By rolling the ball, twice, up the spiral ramps at the side of the playing field they could achieve a score multiplier that would double the point's value of any goal scored. A player could cancel their opponent's multiplier by rolling the ball up the same ramp; this meant that many matches were fought out in the centre of the field as each team scrapped and struggled to score a multiplier whilst also stopping the opposition from doing the same. With careful planning and a little bit of luck however, the cleverest players could stop the game from deadlocking in this way and clean up with a decent run of goals

The pick-up bonuses could be used to gain the advantage in a tightly fought game but the best tactic was to come to the match prepared. The team management mode that was used in the single player games could also be used to train up a personalised squad for competitive play. Players could choose to train all their team in speed proficiency to run rings around the other team, or perhaps raise the team's defence to ensure that they didn't lose the ball to an ugly tackle. For those who spent considerable time editing their team the possibilities were endless, as was the life span of the game For this reason deserves to be ranked amongst the best multiplayer games the Atari ST had to offer.

• Hit an opponent hard enough and it's possible to put him out of the game for good. Losing limbs is common place in *Speedball 2* and once a player can't participate, he'll eventually be stretchered off to the sidelines. Awwwww



Upon *Speedball 2's* release the Atari ST community went absolutely crazy. The game was a critical smash with specialist games magazines like *Atari ST User, ST Format and ST Action* all awarding the title high scores, as well as Fnac awarding it Best Original Game and Indin bestowing it with the Arcade Game of the Year award. The following year *Speedball 2's* fashionable theme tune won Best 16-bit Soundtrack at The Golden Joystick Awards. High praise indeed and praise that was thoroughly well deserved.

As a result of the Bitmaps' hard work and critical acclaim *Speedball 2* went on to sell thousands of copies, no doubt helping to shift a few Atari STs along the way, and was eventually converted to many popular formats, including the Mega Drive and Game Boy Advance. Several developers have created similar games in an attempt to better *Speedball 2* with their own variations on the theme, *Riot* and *Dead Ball Zone* on the PlayStation for example, but none have ever come close to the genuine article. Even the Bitmaps couldn't build on their own achievements: *Speedball 2100* was a slow, jerky mess, and *Speedball Arena* is currently languishing in development hell. Perhaps realising that it is impossible to make Speedball any better than *Brutal Deluxe* they have since chosen to create more updates of the classic sequel for modern platforms, with the most recent offering being a HD update that was released on PC.

With the latest conversions now available for mobile phones (some 15 years after the original release) it looks like *Speedball 2* will never truly fade away. Its enduring popularity is a testament to the individuality of the Bitmap Brothers and their sheer determination to improve upon an already brilliant formula. That original *Speedball* players are now grown up and still dreaming of playing the sport for real is proof that the game's well-balanced set of rules and speedy, exhilarating premise were built to last. And while football and golf simulators continue to sell in their millions, it is this small but perfectly formed fictional game that has won the most hearts. Its atmospheric graphics, award-winning music and fast, smooth, addictive gameplay have ensured that *Speedball 2* has stood the test of time.

THE INSPIRED

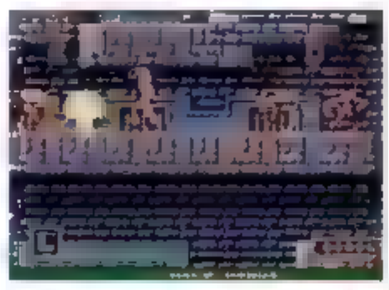
The Bitmaps had a reputation for trendy soundtracks that wouldn't seem out of place on a real music CD: an unusual quality for any game back in 1990. Each tune was incredibly catchy and well produced because it was made by professional chart musicians. *Xenon 2* featured Bomb the Bass and Magic Pockets included a remix of Betty Boo's one hit wonder "Doing the Doo" but *Speedball 2* had the most memorable theme of the bunch. The tune was recorded by Nation 12, a side-project of Bomb The Bass's Tim Simenon and electronics pioneer John Foxx, and helped to create a sense of excitement long before the starting whistle had blown. The theme was an upbeat, electronic number that went through many changes as the tune played out in incredibly distinguishable stereo sound. It was amazing that it fitted on a single floppy disk. Subsequent conversions of *Brutal Deluxe* sadly featured different or poorly remixed tunes and lost much of what made the game so special in the first place. Therefore, if you've never played *Speedball 2* then we recommend the original Amiga floppy disks, as it just doesn't feel right without that pounding techno beat.

DEVELOPER HIGHLIGHTS

THE CHAOS ENGINE
(1992, AMIGA)

GODS (PICTURED)
(1991, AMIGA)

XENON II MEGABLAST
(1989, AMIGA)



Arkanoid III

RETRORENEWAL

ATARI ST
PETER JOHNSON / MARIO
1987

If there's one thing we've learned over the years, it's that fan modifications can be delightfully evil creations. We're not sure why that is, but we've got a theory – anyone who is sufficiently invested in a game to learn how it works has probably played it to death, and therefore no longer finds the difficulty level challenging. While we may or may not be correct in that assumption, modders have given us the likes of *Kaizo Mario World*, *Sonic ERaZor* and the *Doom II* WAD *Hell Revealed* – each one of which are hair-tearingly difficult challenges, and while *Arkanoid III* isn't quite as tough as those above, it is definitely capable of causing a decent level frustration.

Released by a cracker known as 'Mario', *Arkanoid III* presents a brand new set of stages that don't feature in either of the official games released on the ST, all of which offer a stiff challenge from the word go. Blocks are placed significantly lower than the official early stages, making it much harder to settle in with a power-up as you constantly scramble after the ball. Worse yet, blocks that take multiple hits to break are used liberally throughout the game – the entire bottom row of the second stage is made of them, for example.

We really like mods, but it's not hard to see how they can get quite intimidating – the level of difficulty here is just a bit too much for our untrained reflexes to deal with. On the other hand, *Arkanoid* fanatics might just love it. ★

ARKANOID
CRACKED AND MODIFIED BY
MARIO
1ER JOUEUR :
010370
2ME JOUEUR :
000000
TOP SCORE :
KK2130

THE MAKING OF...

BLOODWYCH

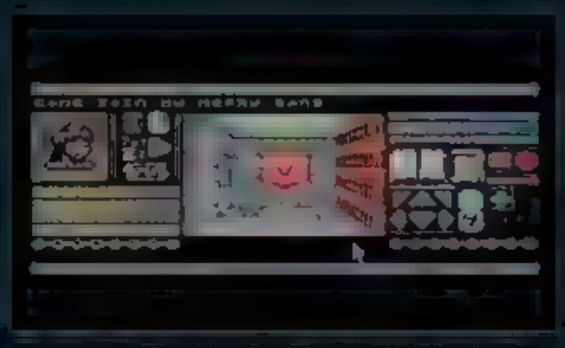
Spectrum, Amstrad CPC and the Commodore 64 over the following 18 months...

"TO THWART THE PLAYER, THE CITIZENS OF TRAZERE HAD BEEN TRANSFORMED INTO PSYCHOTIC MONSTERS..."

Bloodwych was designed and created by Anthony Taglione (better known in the gaming world as Tag), his younger brother Philip (who coded the 8-bit conversions) and their friend Pete James, who co-designed and created the graphics.

The origins of the game can be traced to Tag's University days in Reading: "I used to play *Dungeons & Dragons* type games at University and remember one night trying to fall asleep wondering how to put *D&D* onto a computer. My friend and colleague, Pete James, was suffering similar insomnia and, being an artist, was drawing screens for a first-person perspective game on his Commodore 64. He fancied creating a two-player game and had the idea of a chess-like game based in a dungeon."

It was also around this time that FTL's *Dungeon Master* was released for the Atari ST, as Pete James recalls... "One day I got a phone call from Tag asking me to come over to his house to see this new game. That was my first encounter with *Dungeon Master*. We played it to the end, adopting a team system where I controlled the keyboard and Tag the mouse. I think we completed it three times using this method, once with a party made up entirely of short people."



» In the 16-bit versions the player had to persuade other characters to join their party.

Inspired by the game, Tag and Pete suggested to Mirrorsoft (the European distributor for *Dungeon Master*) that they could write a Commodore 64 version for it. Whilst Mirrorsoft deliberated over the commercial viability of the project, Tag and Pete proceeded with their own two-player maze game design. The idea of a C64 conversion of *Dungeon Master* came to nothing in the end, but it gave Tag and Pete a foot-in-the-door at Mirrorsoft, who agreed to fund the development of their *Crystal Maze* game on the proviso that the lead versions were 16-bit.

Whilst Tag quickly learned the intricacies of programming for the 68000-based ST and Amiga, Pete upgraded his graphics and designed the initial maps for each dungeon level. In total, the finished game had over forty different levels to explore, spread across the Treihadwyl cellar and the five different towers – Serpent, Moon, Chaos, Dragon and finally Zendik's.

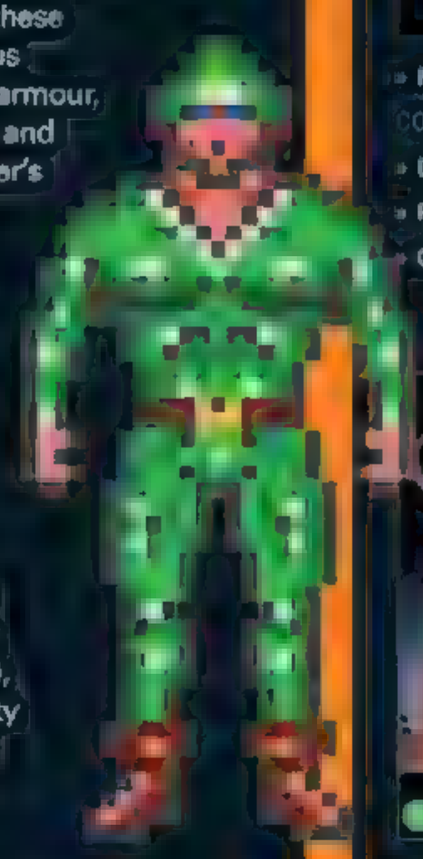
By the time the game was halfway through development, Richard O'Brien had stolen a march on them by announcing *"The Crystal Maze"* TV series for Channel 4 in the UK. Forced to seek an alternative name, Tag and Pete eventually came up with an alternative, as Pete elaborates. "We thought *Bloodwych* sounded more appropriate for the type of game that the simple maze design had evolved into."

The plot behind the new game was traditional fantasy fare. Four crystals needed recovering from four towers, which then had to be taken to the fifth and final tower where they could be used to defeat the evil Zendik, Lord of Entropy. To thwart the player, the citizens of Trazere had been transformed into psychotic monsters and various challenging puzzles also obstructed the adventurers' progress.

The puzzles were generally designed around keys, pressure plates, gems, buttons and doors. Safe rooms to rest in (character's gained experience levels and could buy extra spells whilst they slept) and shops to trade items were also liberally scattered throughout the dungeons. Lastly, regenerating rooms allowed dead adventurer's bones to be brought back to life.

The RPG elements of the design included Psyche types. Each type was represented by a playing card suit: Spades for Fighters, Clubs for Mages, Hearts for Adventurers and Diamonds for Assassins. Their magical allegiance was represented by a colour – Red for Fire, Green for Earth, Blue for Moon (Psychic power) and Yellow for Chaos.

Bloodwych also featured a plethora of special items to collect. In true RPG fashion, these items included various swords, axes, staffs, armour, gloves, wands, bows and arrows. Each character's Armour Class (AC) could improve or worsen depending on the type of armour and shield worn; the lower the AC rating the better the protection. The player's other ability stats included Strength (ST), Agility (AG), Intelligence (IN), Charisma (CH), Vitality (VI), Food levels and their crucial Hit Points (HP).



TWO'S COMPANY

Bloodwych allowed the player to choose their adventurers from a selection of 16 pre-defined characters. This included human and non-human characters with wonderful names like Blodwyn Stonemaiden, Mr. Fiery Sepulcrast, Thai Chang of Yinn and Zastaph Mantric.

The thing that made *Bloodwych* stand out from the crowd was the simultaneous two-player option. Using the same computer, two players could explore the same dungeon levels at the same time with two independent parties. The screen was split horizontally, allowing the players to have their own view of the dungeon at the top or bottom halves of the screen.

The game didn't require direct co-operation between the players, but it certainly helped when fighting the hordes of monsters in each dungeon! Despite other technical limitations, all of the 8-bit conversions included the simultaneous two-player option that made *Bloodwych* unique.

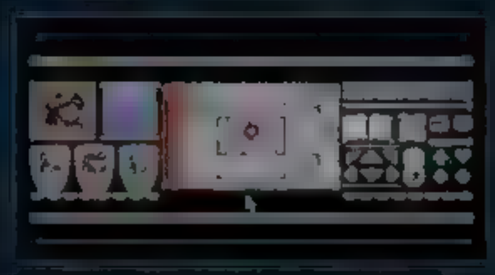
» Players could choose two groups to go on the quest simultaneously.

IN THE KNOW

» PUBLISHER: HEWSON CONSULTANTS
» DEVELOPER: STEVE TURNER
» RELEASED: 1986
» GENRE: PUZZLE/ADVENTURE

THE MAKING OF... BLOODWYCH

» Info could be divulged in the 16-bit versions by talking to Non-Player-Characters.



» Many of the puzzles involved pressing wall buttons to open new dungeon areas.

» Locked doors were just one of the obstacles to completing the quest for the crystals.

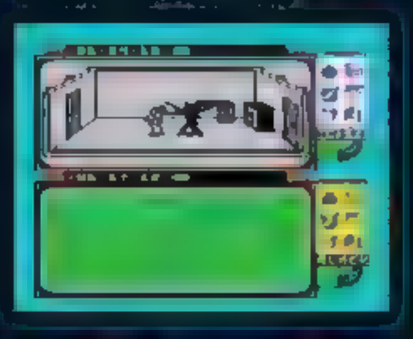
DEVELOPER HIGHLIGHTS

ANTHONY TAGLIONE

THE LORDS OF MIDNIGHT
(conversion with Malcolm Hellon)
SYSTEMS: C64
YEAR: 1984

SPY VS. SPY
(conversion with Malcolm Hellon)
SYSTEMS: SPECTRUM 48K
YEAR: 1984

TOTAL WAR SERIES
(Creative Assembly)
SYSTEMS: IBM PC
YEAR: 2000 – PRESENT



"RENOWNED FANTASY ARTIST CHRIS ACHILLEOS WAS HIRED TO CREATE THE BOX ARTWORK."

Common keys would open or lock a typical dungeon portcullis and gold coinage was used for buying and selling items at the shops. Various other special keys unlocked and opened specific doors. Once a key was used on a door, the key would disappear.

Bloodwych's spell system was simple and easy to use. Each adventurer started the game with a spell book and one suitable spell. As they defeated the monsters each character gained vital experience. Increasing their experience levels could only happen whilst resting, and gaining a level also gave them the chance to buy one new spell to add to their spell book. Early spells included Armour (extra protection), Magelock (to lock or unlock common doors), Missile, Confuse (temporary disorientation of the enemy) and Deflect.

TALKING TO MONSTERS

Bloodwych also included a rudimentary communications system. The original idea was quite simple, and it grew as the game developed. A number of basic options lead to other sub-options. Players could try talking to other non-player characters in the dungeon. They could ask their name (an option originally suggested by Anthony's wife) or their occupation, as well as request information on other items, characters or rumours. Fellow party members could also be commended, reprimanded, recruited or dismissed.

By making a character 'wait', the remaining adventurers could go elsewhere in the dungeon. They could then 'view' the dungeon through the eyes of the waiting character and then 'call' them back into the party later on. Although this feature could in theory be used to help solve some of the puzzles found in the game, players seldom used it as the 'waiting' character couldn't be controlled independently and was merely a passive observer.

THE ART OF BLOODWYCH

Renowned fantasy artist Chris Achilleos was hired to create the box artwork, and his painting of a "crystal guardian" for *Bloodwych* was the first of many paintings that he produced for Mirrorsoft over the next two years.

Chris remembers how much he enjoyed producing the artwork, "It was wonderful to be given the freedom to paint whatever I wanted. The only brief I was given was that it had to be a monster guarding a crystal, in a tunnel-like environment. The rest was left up to me."

Having finished the painting, the creature was then incorporated into the game itself as the Behemoth, located in the final level of Zendik's tower. The painting was also re-used for the *Bloodwych* Data Disk packaging just six months later, and was used extensively in magazine adverts with the concluding tag-line (pun intended!) "*Bloodwych* – For Those Who Dare!"

DEMOS AND DATA DISKS

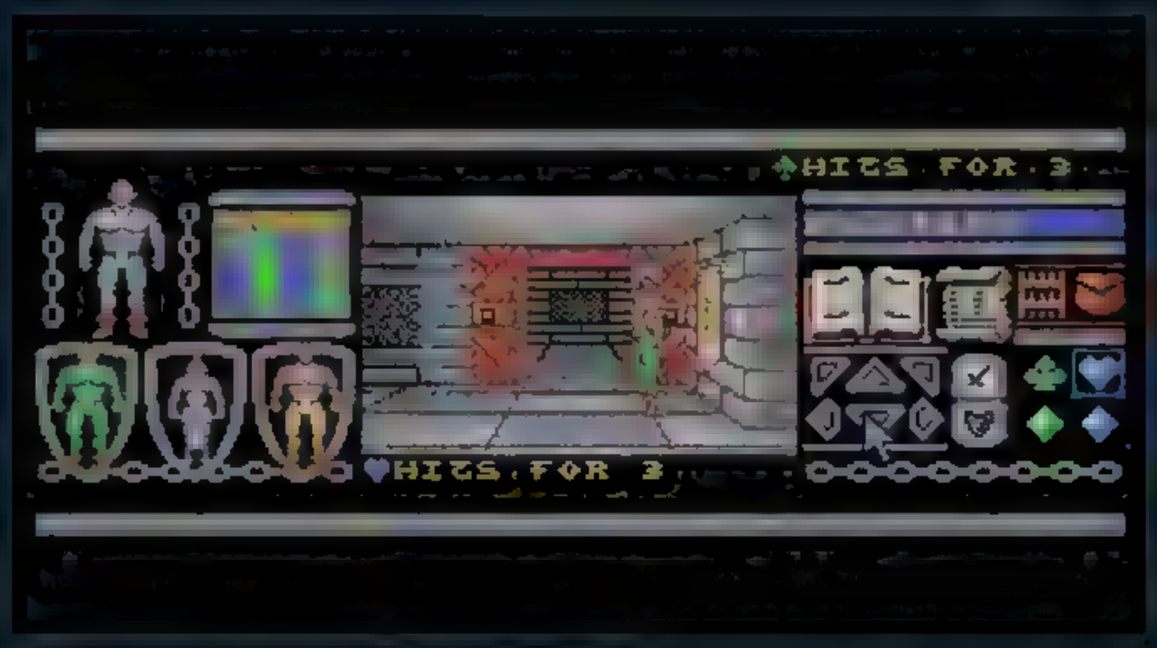
A playable ST demo of *Bloodwych* was produced for the first ever issue of ST Amiga Format magazine just a couple of months ahead of the impending launch, featuring the first level of the game.

Bloodwych divided RPG fans down the middle. Those who liked it were mainly attracted by the multi-player element. Those who didn't appreciate its finer points usually complained about the style of graphics, the simplistic animation and the small size of the dungeon 'window' – a technical decision explained by Philip Taglione. "The small screen was simply to allow the code to run fast enough, since we used a four level deep view, where most RPG games of that sort stopped at three levels. Of course it meant more processing to achieve this." The game was well received by the computer press, and it sold enough to merit a Data Disk release for the ST and Amiga. More than just extra levels, *Bloodwych: The Extended Levels* data disk introduced fresh spells to the spell book and allowed players to recruit monsters into their party.

The only way to play the extended levels was to import a saved game from the original game. The data disk featured much tougher opponents than before, so the recommended experience level for the imported

» Four against one was hardly a fair fight!

» The Paralyze spell was just one of the ways of defending your party from attack.



» Attacking monsters from the side was a good tactic during combat.

"THE AMSTRAD CPC VERSION, WENT ON TO WIN 'ADVENTURE GAME OF THE YEAR 1990'"

adventurers was level 14. If the imported characters' experience fell below that level, the Data Disk would temporarily accelerate their progress. The package also included a free 'hints & tips' booklet for the original dungeons.

CONVERSIONS

The 8-bit conversions of the original Bloodwych game followed in 1990. Tag's brother Philip wrote the Z80 versions (Sinclair Spectrum 48k and Amstrad CPC), squeezing everything he could get out of the meagre amounts of available memory. Aside from the memory issue, the Spectrum 48k version had to employ a monochromatic 3D dungeon, which meant some of the objects left lying on dungeon floors were difficult to spot.

Some game features and graphics also had to be sacrificed for the 8-bit conversions. For example, most of the communications system was exorcised; talking was only allowed when the player encountered a shopkeeper. Thanks to the lack of signs on the walls, the only way a player knew they were at a shop was because the shopkeeper didn't attack them! The grandiose stone staircases from the ST and Amiga were changed to ladders, and the shelves that adorned walls were quite literally shelved! With the Z80 conversions finished, Philip then wrote the Commodore 64 version with help from his brother Tag. All three 8-bit versions featured the same reduced features and the same map data, yet these limitations didn't prevent the Amstrad CPC version from winning 'Adventure Game of the Year 1990' from the French Computer Press.

Walking Circles (led by Graham Stafford, formerly of Crystal Computing and Design Design fame) wrote the IBM PC conversion of *Bloodwych* in 1991, based on Tag's 68000-source code. PC *Bloodwych* was the only version to feature in-game music, written by erstwhile games musician David Whittaker. Konami released the PC version in the US, but chose a white box (similar to the Data Disk release in Europe) rather than the original design.

The ST and Amiga versions of *Bloodwych* were subsequently re-released in 1991 via Mirror Image (Mirrorsoft's new budget range), just a few short months before Mirrorsoft's untimely demise. *Bloodwych* ultimately become part of an unofficial trilogy of RPGs created by the same developers, including a prequel and a re-imagining in proper 3D. It was a very popular RPG in its day, and there are a number of websites around today that cover the intricacies of the game in detail, along with a handful of homebrew 3D remakes currently in development.

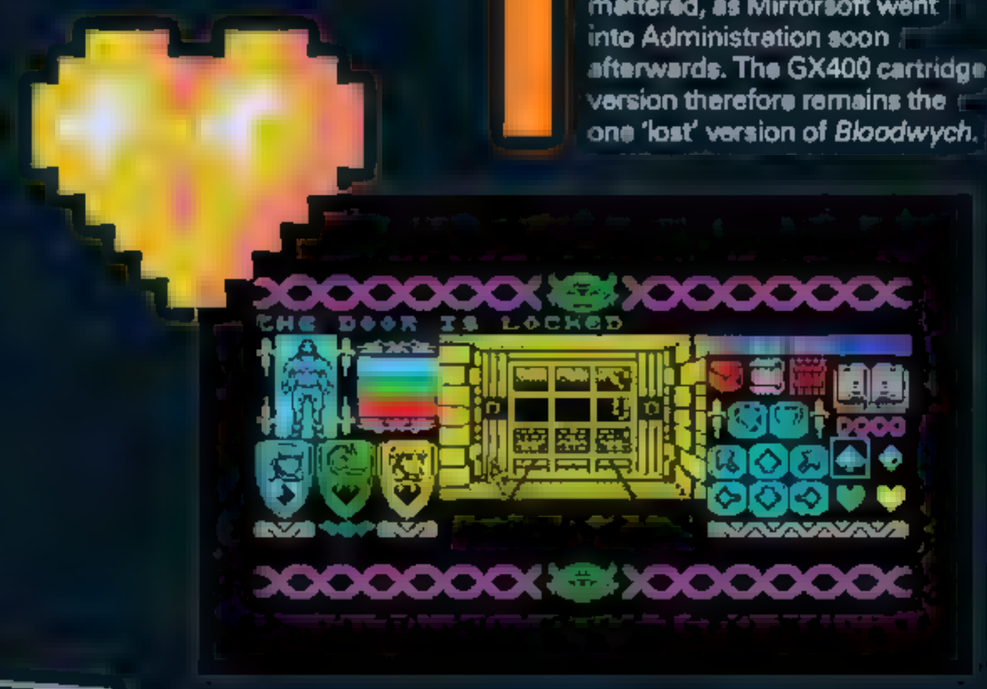
OTHER GAMES IN THE SERIES...
Legend
Worlds of Legend: Son of the Empire
Hexxl Heresy of the Wizard

LAST OF THE BLOODWYCH

The last version of *Bloodwych* was for the short-lived Amstrad GX400 console. Philip Taglione took the existing Amstrad CPC game and created a cartridge version, minus the usual 'save game' functionality. In its place was a pass-code generator, which created a long code consisting of numbers and letters. The codes were presented at the end of each dungeon level. When entered into the game, the codes remembered the items and general stats that belonged to the adventurers and placed them at the start of the next dungeon level.

Other changes were made for the GX400 version. The full communication system from the 16-bit versions was implemented as the extra code could be called from the cartridge as if it was RAM; an improved cursor was also included, along with a 'dancing' *Bloodwych* logo on the title screen and other minor technical improvements.

Unfortunately, all the development work was to no avail, as Mirrorsoft took the decision not to publish, mostly due to poor sales of the GX400 hardware. The decision hardly mattered, as Mirrorsoft went into Administration soon afterwards. The GX400 cartridge version therefore remains the one 'lost' version of *Bloodwych*.

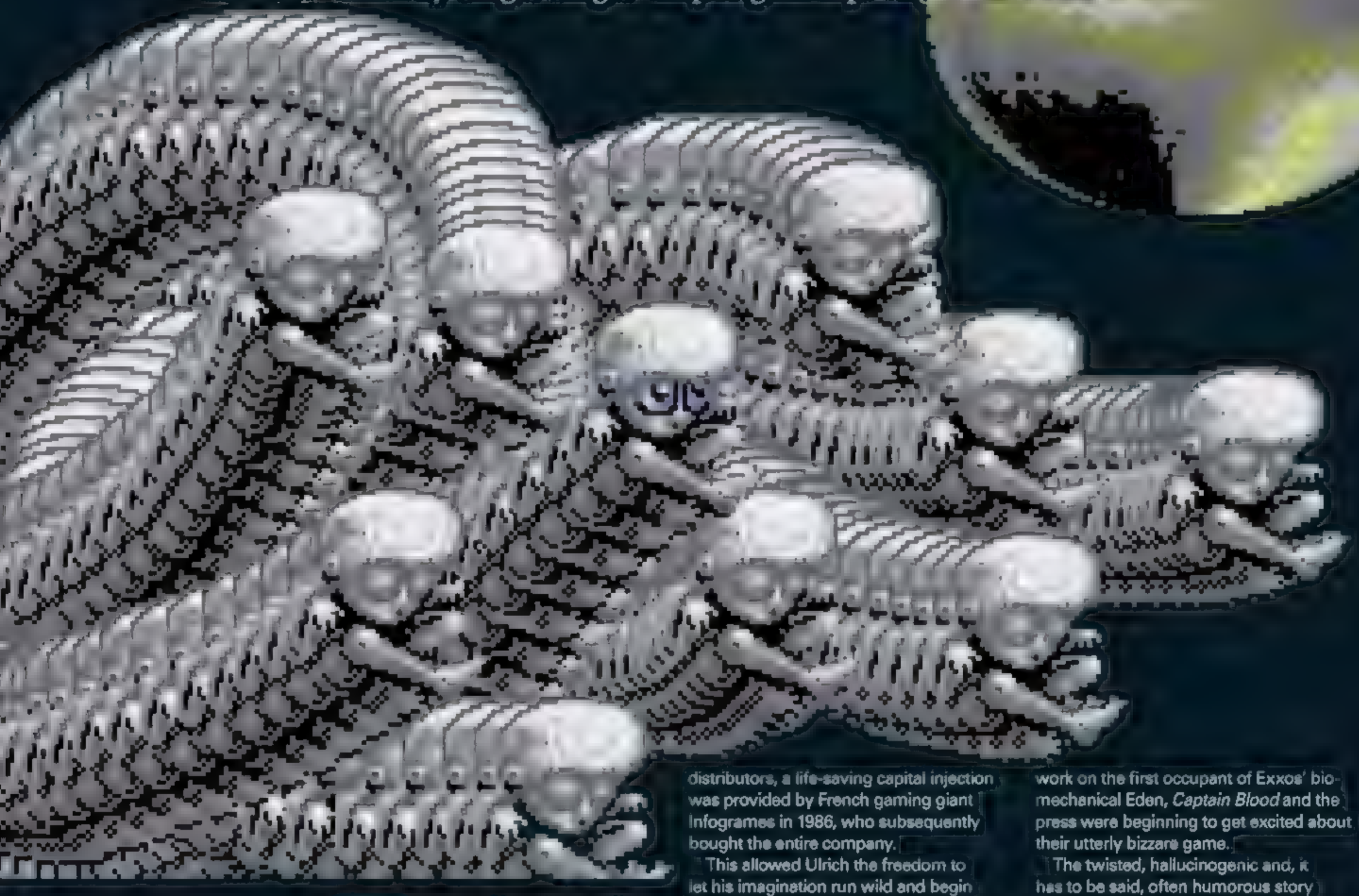


» Tag's brother Paul worked on all the Z80 versions of *Bloodwych*, including the Spectrum.

THE CLASSIC GAME

CAPTAIN BLOOD

Howdy, you. You want play Blood (laugh) (laugh)? Blood great, [illegible] take you see Hydra Galaxy, give impossible information? Make [illegible] You know what I say (laugh) (laugh). Teleport great ship, we [illegible]



Trust me – a few minutes at the UPCOM panel arguing about the co-ordinates of a planet where Small Yoko can get go to get his freak on and that disjointed introduction will make perfect sense. It's one of many such conversations you'll have in the surreal, grotesque and, at times, facetious universe of *Captain Blood*.

An enigmatic and highly creative type, Philippe Ulrich's fascination with a computer's musical and entertainment possibilities prompted him to team up with Emmanuel Viau and found the first French games developer in 1981, ERE Informatique. The end result was a game quite unlike anything else of the time.

After facing down some difficult financial problems with a series of failing distributors, a life-saving capital injection was provided by French gaming giant Infogrames in 1986, who subsequently bought the entire company.

This allowed Ulrich the freedom to let his imagination run wild and begin working toward the hardcore sci-fi chronicles he was intent on creating for his game. Bringing in Didier Bouchon – a likeminded artist who'd done some design work on his earlier games – the two put their minds to delivering a dark fantasy epic for the Atari ST.

At a fittingly surreal press conference, Ulrich not only announced the new experimental gaming label within the Infogrames sphere, Exxos, but also his new religion dedicated to the worship of a god by the same name! He stood before a host of journalists and newsmen, urging them to repeatedly chant the phrase: "Ata ata hoglo hulul" in praise of this new gaming deity. After a few moments of incredulity, many even joined in, Ulrich and Bouchon were primed to begin their work on the first occupant of Exxos' bio-mechanical Eden, *Captain Blood* and the press were beginning to get excited about their utterly bizzare game.

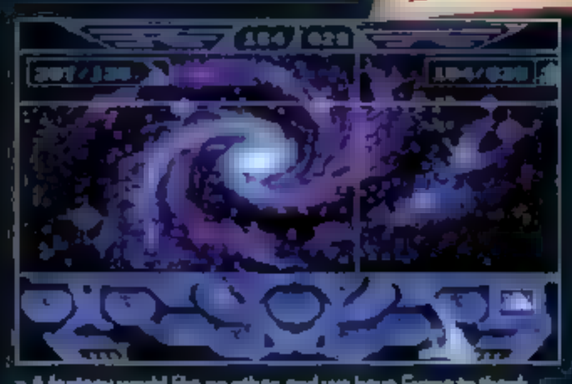
The twisted, hallucinogenic and, it has to be said, often humorous story of *Captain Blood* is something of an illusory bastardisation of *Tron*, wherein a despondent computer programmer unwittingly becomes a malfunctioning narration subroutine in the biological computer system of the real Captain Blood's space ship.

» The impressive (for the time) 3D flight sequence as an Oorxx bio-missile is piloted to the surface of a planet.

IN THE KNOW

- **PUBLISHER:** INFOGRAMES
- **DEVELOPER:** EXXOS
- **RELEASED:** 1988
- **GENRE:** RPG

» As his condition worsens, Blood's head spasms in response to his new technological nervous system; a wonderful, visual euphemism in lieu of a typical countdown as the time limit nears.



» A fantasy world like no other, and we have Exxos to thank.

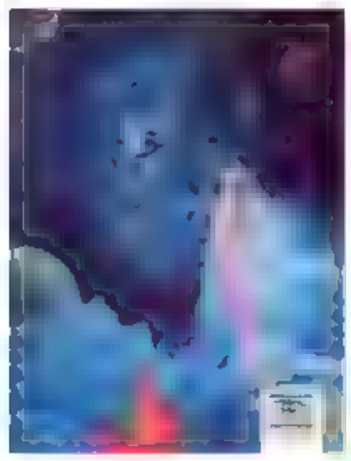
» Exxos' development talent went on to form Cryo Interactive Entertainment and immediately wowed the industry the hit adaptation of the James Herbert novel, *Dune*.

MEET BOB MORLOK

The Exxos label, despite only releasing three games, became revered for the extra contents of the game box. In *Captain Blood*'s case, it was the original novella *The Ark According To Captain Blood*.

This eccentric and comical story explains the bizarre conception of Captain Blood and the otherworldly journey of his obsessed progenitor, Bob Morlok. Absorbed into the diseased universe he created for a videogame, Bob becomes an aspect of Captain Blood's bio-consciousness. When a failed hyperspace jump clones 30 copies of the Captain, the mission begins to reclaim them and restore the vital fluids used to make the 'Duplicates' to the original Blood.

Along the way, Blood encounters a female Oorxx and his ship dissects its genes to install an on-board birth ramp for controllable bio-missiles Blood can use to explore the galaxy more efficiently. After 800 years of searching, only five 'Numbers' remain, but they've been tipped off by a Migrax and hidden themselves away. This is where the novella ends and the player takes over Blood's nightmarish fate



EACH SPECIES HAS THEIR OWN MODE OF SPEECH, MEANING BLOOD MUST ENDURE THE SELF-EFFACING PESSIMISM OF THE IZWAL AND THE DIPLOMATIC BUREAUCRACY OF THE BUGGOL

» In 1994, an MS-DOS-only sequel was released called *Commander Blood*. Although it went mostly unnoticed, this is a serious overhaul to the original game and a valuable addition for ardent fans.

Blood has just begun a desperate quest to hunt down the last five 'Duplicates' (clones of the Captain) across the galaxy and recover his essential juices taken during the accidental cloning process. To keep him alive during the search, his ship (The Ark) gradually replaces his organs and functions with cybernetic devices. This adds to Blood's woes as he fights to regain his humanity before the lure of full, robotic replacement becomes too much.

The Ark is a massive living entity unable to physically land on any of the 32,768 planets in the vast Hydra Galaxy. To facilitate Blood's search, the Ark is able to give birth to Oorxx missiles. These living, biological machines have a number of uses, such as providing orbital reconnaissance of a planet's defence systems, teleportation of life forms and, most impressively of all, destruction of an entire planet.

Before an Oorxx can be put to effective use, however, Blood must manually fly the living missile over the planet's surface and through a tight canyon to the home of the inhabitant in an impressive 3D mini-game sequence. Once the Oorxx has located a life form it lands and makes itself available as a comms relay or weapon of mass destruction, depending on requirements.

Since the galaxy is so mind-numbingly vast, jumping through hyperspace at random is a sure way for Blood to spend his last few hours of humanity in solitude. The game always begins at a populated planet, so coercing information from whichever creature the Oorxx locates is vital to the dreamlike quest. Keeping note of the locations of populated planets is a must for any space travellers, as is investigating any leads proffered by the weird and wonderful galactic inhabitants.

Interspecies interaction involves translating a series of UPCOM (Universal Protocol of Communication) symbols from a library of 150 different visual concepts, then replying in a similar manner. Each species also has their own mode of speech, meaning Blood must endure the self-effacing pessimism of the Izwal, the diplomatic bureaucracy of the Buggol and the underhanded belligerence of the Yukas.

Once a 'Number' (as the five clones are called) has been tracked down, Blood must dupe them into willingly transporting to his ship. When an alien is beamed on-board, they're stored in cryogenic suspension as a security measure and placed in the fridgitorium. This storage device has a built-in cremation facility, if Blood should feel so inclined the occupant of the fridgitorium can be instantly disintegrated. As well as providing an outlet for vengeance this is the method by which the stalwart Captain reclaims his fluids from the clones.

Ulrich originally stated that Exxos was the beginnings of the 'bio-game', and while this imaginary genre may sound a little ambiguous, the term becomes eerily understandable after an hour's play as *Captain Blood* really did find a whole new gaming genre single-handedly.

Captain Blood received a sequel, *Commander Blood* in 1994 and was followed by its own sequel, *Big Bug Bang* in 1996. While interesting, they fail to capture the brilliance of the original classic.

» The second sequel was even more obscure and unheard of than *Commander Blood*. *Big Bug Bang* was an MS-DOS game that only saw a French release. So sad (sob) (sob).

» Surrealist, sci-fi writer and game designer extraordinaire, Philippe Ulrich.

FROM THE ARCHIVES

RETRO GAMER DIGS UP THE FILES OF THE CLASSIC COMPANIES OF OLD

Imagitec Design

Imagitec Design is the biggest software house you have never heard of. Throughout the Eighties and Nineties it worked on some of the biggest games in the business, including some truly impressive ace Atari ST games, Kieren Hawken brings us its fascinating story

Dewsbury, West Yorkshire might not seem the obvious place to open a game studio but in 1986 Martin Hooley and James North-Hearn did just that.

Dewsbury became prominent in the 19th Century as a mill town and so it seems only right that the original home of Imagitec Design was a converted mill. In these early years Martin had a team of around 20 staff, many of which he recruited personally to help set up its development systems. "In the early days I recruited and imported a number of crack hacking teams, one of these was The Judges, the legendary Dutch Hackers," Martin says

As Imagitec began to write its own development systems, porting games across several platforms became much easier, as Martin explains. "Our porting skills grew quickly as we built our own development solutions based on the Atari ST. Joolz [Julian Alden-Salter] wrote most of the tools." Imagitec actually became the first ever UK developer to work with Electronic Arts when it converted *Ferrari Formula One* from the Amiga to the other popular home computers of the time Imagitec really cut its teeth on some of these early ports, with other efforts including a conversion of *Ultima* from the Apple II to the C64 (this code was later used for the NES version) and *Times Of Lore* from the C64 to multiple formats This was the first game written by *Wing Commander*'s Chris Roberts

Imagitec worked with another big name, as Martin tells us. "We did a lot of work for Apple direct, converting a lot of the Gremlin titles to its Macs, using Power VR graphic boards called the Gazelle," adding this interesting snippet, "this was the same chipset as the iPhone, we even worked on its failed Pippin console." This led to the start of a long-standing relationship with Gremlin Graphics that would see Imagitec not only producing original titles for Gremlin, but also handling conversions of games to other platforms.

Imagitec's first two games for Gremlin were *Blood Valley* and *Butcher Hill*, both of which were released for the Spectrum, C64 and Amstrad CPC, with the latter also seeing conversions to the Amiga and Atari ST. Both games received a lukewarm reception, but they did show that Imagitec could work with multiple platforms at one time. "It was the long-standing relationship with Gremlin that led us to become one of the best trans-coding shops that there was, we could port anything to anything," Martin proudly tells us

Rapid Growth

With the reputation of Imagitec quickly growing it was time to hire more staff and in 1989 the company grew massively in size. One of these new employees was Kristi Louise Herd, who went on to become a lead graphic artist for the company, and she still remembers it all very clearly... "I was at college and I had dabbled with computer graphics and a bit of code. My

INSTANT EXPERT

Imagitec Design's first HQ was an old converted mill in Dewsbury West Yorkshire

It had a special relationship with Gremlin for many years before being bought out by them

Imagitec once shared a building with a brothel and saw regular visits from the vice squad

Its biggest hit was *The Humans* which appeared on 12 different formats and had several sequels

Imagitec never published any of its own games but developed for some of the biggest names in the business such as Gremlin Atari GameTek Mindscape and Virgin

It was also a music studio and produced both the in-game music and soundtrack CD for the classic Jeff Minter trip-fest *Tempest 2000*

***Viking Child* was** originally titled *Prophecy 1 The Viking Child* but never received any sequels

It developed a host of games based on popular TV shows such as *Wheel Of Fortune Jeopardy TNN Fishing* and *American Gladiators*

After DMA Design struggled with the development of the original *Grand Theft Auto* game on the PlayStation it was turned over to Imagitec for completion

"The effective boss of Atari was Sam Tramiel, who was a really good bloke, the CTO was his brother Leonard – he was a different matter"

MARTIN HOOLEY

main focus was to qualify as a professional graphic designer and I would think about a job when I graduated. To gain some experience, I volunteered my services to Dewsbury Technical College producing booklets using Desktop Publishing. It was a cool thing to do as it gave me an opportunity to experiment with drawing graphics on a computer."

It was at this point her tutor spoke to her about a job opportunity she might be interested in. "He said that a mate of his ran a small gaming company and he was looking for artists, why not give him a call." That company of course was of course Imagitec Design and after she took a portfolio of work to an interview with Martin, she was offered a job on the spot.

Kristi's first work for the company was on the C64 and included the smash hit *Fiendish Freddy's Big Top O' Fun* for Mindscape. She has great memories of working with the C64, telling us, "I took to the C64 without a hitch. At my interview I had to draw with a joystick using Koala Painter on the C64. It took a while to get used to drawing with double pixels, but I thought it was pretty awesome. I had some difficult games to do graphics for, but the C64 handled the task without a problem." Kristi also feels her work with the C64 put her in good position to handle other machines, revealing "working with the C64 made me a more competent artist because of the technical difficulties to overcome. It was always a challenge to get something different going on the C64, but I think as an artist, I achieved that."

Barry Leitch joined Imagitec in 1988 as audio director and was a huge part of the company's growth. He worked with the programmers to create custom sound drivers for all the major machines, enabling them to quickly create and convert music for all manner of platforms. "I had worked with the programmers to unify the data structure for the music drivers," Barry tells us. "The C64 was by far the most advanced music driver we had at the time, as everyone was literally trying to squeeze every ounce out of C64 audio. Being able to utilise even just the note data and recreate the instruments for the other target platforms made life *so* much easier."

Barry then revealed more about the conversion process, revealing, "I'd write the Amiga music first as a four-channel wave table. Having a background in C64 audio was key to how the audio was composed and I was careful to only do stuff that I could replicate on other systems."

Barry thinks that many other studios were too ambitious with what they tried to do, telling us that "some people used big speech samples or other sounds that would never be able to be replicated on lesser platforms. While this gave them an edge on the Amiga, it sounded pish on every other platform."

Once the Amiga version was done Barry would then make the three-channel versions. "I reduced the polyphony using arpeggios, or by sneaking some percussion ▶

BY THE NUMBERS

20 The number of different systems Imagitec Design developed games for.

5 Million dollars is how much money the company turned over in 1995.

3 How many different buildings Imagitec lived in during their existence.

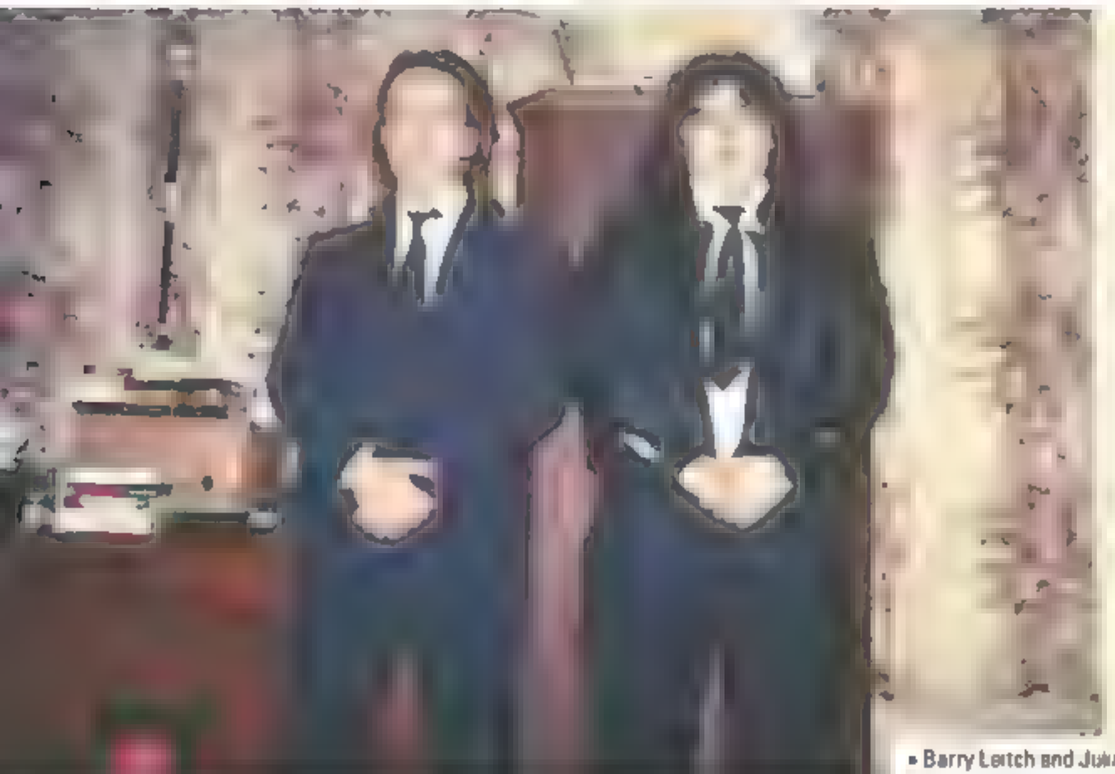
1 Hour was the deadline they were once given to produce a music conversion (they did it).

19 All of the games they produced for Atari had to be sent over to Sunnyvale using a 19k modem, some files were over 2MB in size!

40 Minutes was the amount of time the employees were given for lunch, with one hour on a Friday.

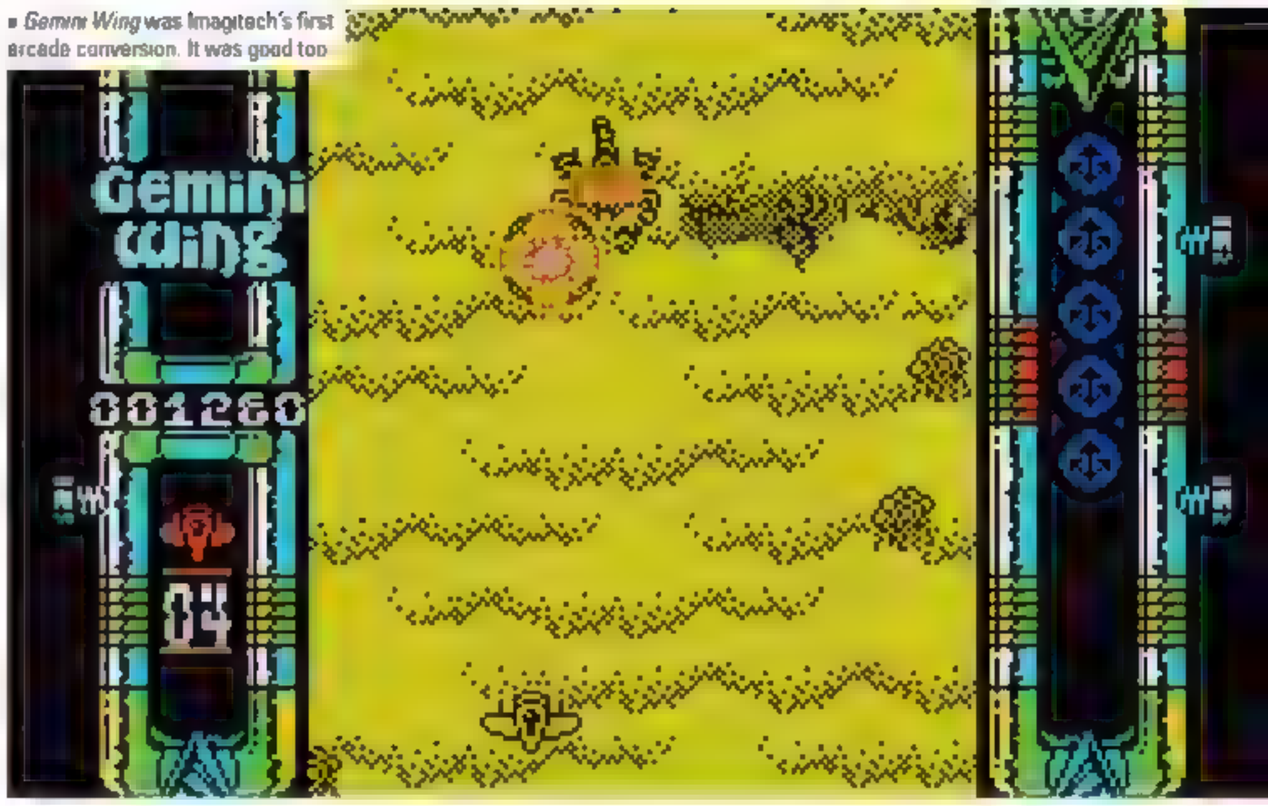
4 Number of games in *The Humans* series

16 How many hours they often worked when trying to complete a game.



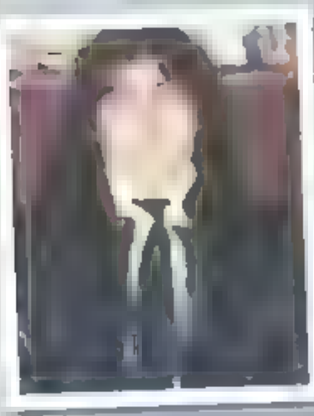
▪ Barry Leitch and Julian Alden-Salter looking dapper on Imagitec prom night!

▪ *Gemini Wing* was Imagitech's first arcade conversion. It was good too



WHERE ARE THEY NOW?

Martin Hooley
Martin was the MD of Imagitec Design throughout the company's existence and saw them through all their highs and lows. After guiding the company through a successful takeover by Gremlin he went on to form a new company called Blue Monkey studios in Las Vegas where he specialises in digital animation. They have also produced videogames for all major formats.



Julian Alden-Salter
When he was at Imagitec, Julian worked as a lead game designer and as the head of 68000 development where he took charge of many key products. After leaving the company in 1992 he went on to work at Origin up until the takeover by EA, then Argonaut where he worked on the *Croc* games. This was followed up by a period at DDI where he produced titles based on the popular Tonka toys. Eclipse and Blitz Games also made use of his services before he chose to leave the games industry behind and he now programs embedded systems for a small private company.

Kristi Louise Herd
Kristi was one of the few female graphic artists working in the games industry during the Nineties. In fact she was the only female working at Imagitec, aside from the secretary. As the lead graphic artist she was responsible for many of Imagitec's biggest productions including *Daemonsgate* and *Fiendish Freddy's Big Top O' Fun*. After leaving Imagitec she worked for both Attention To Detail, where she worked on *Blue Lightning* for the Jaguar, and then Take 2 Interactive. After spending some time as a web developer and retail manager, she is now a research administrator but her new passion is photography.

Barry Leitch
As Imagitec's audio director Barry was the key man behind the success of their own music studio that quickly gained a reputation as one of the best in the business. After leaving Imagitec, he went on to perform similar roles at Ocean Software, Origin, Boss Game Studios and Atari Games. Four years followed at Fisher Price where he was in charge of music production for their various products. Barry now runs his own music studios where he works on everything from ring tones and game music to movie sound effects.

into the bass line tracks. Once that was done it was really just a matter of recreating the instruments for the different platforms to take advantage of any special hardware capabilities and TADA! You had the music across a bunch of platforms in a matter of minutes." Barry thinks that all this work really gave them the edge over other studios of the time. "As we had all those music drivers, it made us a great alternative for clients to use instead of David Whittaker. A lot of the conversion work came from the partnerships we had with other companies at the time, Gremlin, Electronic Arts, Microprose, Virgin etc."

Efficiency also played a big part in Imagitec's success, with Barry proclaiming "We were fast, really fast! For one example, I think it was *Supremacy* on the PC, I was literally given a cassette tape of the music at 4pm on a Friday afternoon and told if I had it done by 5pm they could use it, if not the game would ship without music, and I did it!" Another memory revolved around a trip to Gremlin. "I was doing *Impossamole* for the TurboGrafx 16, all the music and the sound driver was written in five days down in Sheffield. *Top Gear* for the SNES was a similar affair with stuff being thrown together under ridiculously tight time-frames."

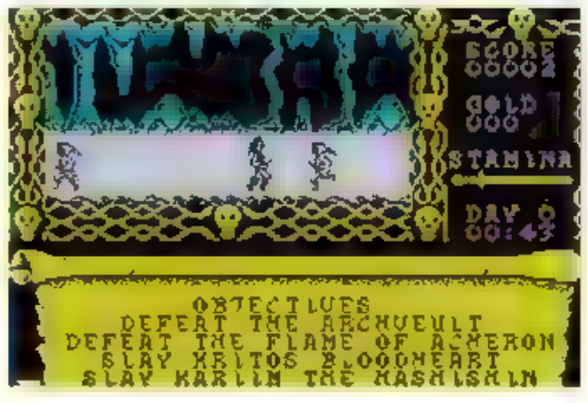
Barry's favourite machine to work with was the Amiga and he attributes much of his success to Commodore's machine "When it came to the Amiga, Gremlin were making amazing games. I was really lucky to be in the position to do these games, suddenly the stars aligned and I stopped writing music that sucked! *Lotus 2*, *Utopia*, *Harlequin* and *Hero Quest* were all great melodies." When compared to the other famous computer musicians of the time Barry commented "It didn't hurt that Richard Joseph was fairly exclusive at the time. Hubbard, Galway and Whittaker had all headed to the States and Daglish had vanished, so for a brief time I felt like I was the king of the castle!"

Burning The Candle

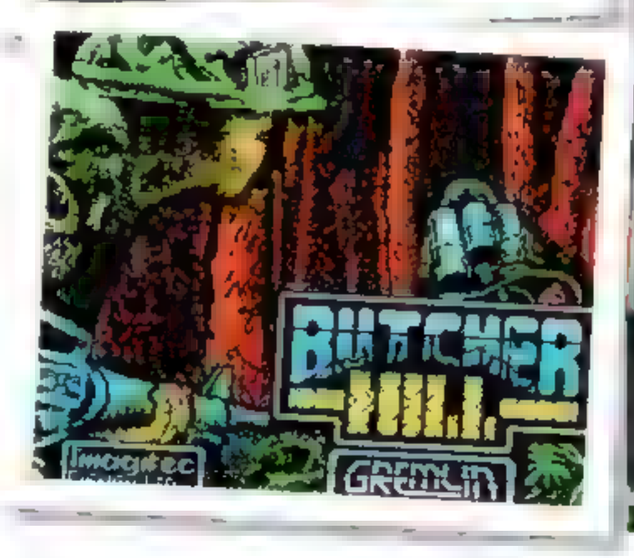
When it comes to the glory years of Imagitec Design in the late Eighties and early Nineties, the stories are endless. It regularly burned the candle at both ends, working until the early hours of the morning and often slept in the office. Many of them even had their own bedrooms and apart from numerous jaunts to the local pub, Imagitec was their life. Kristi looks back on how stressful those years in the industry were, and reveals, "Those of us who worked in the industry around [that time] belong to a unique breed. It was challenging, it was exciting, we felt and acted like rock stars, but lived like paupers! There was no money and no glamour, but we produced games that are still talked about and will remain classics."

Mark Fisher was a programmer at Imagitec and clearly remembers working all

▪ *Combo Racer* proved to be an interesting take on the racing genre



▪ *Blood Valley* was the first game programmed by Imagitec Design for the 8-bit micros.



» There was a rather large queue for the toilet after Imagitec curry night

night. "At one point I was living in the mill, I had a nice double bed set up on the top floor in a little room, it may have been the spare parts room. We used to play a game at night where we would move as slowly as possible to see if we could outwit the IR sensors." Coder Andrew Seed was no stranger to late nights either, telling us, "I can remember one late night where I was stuck in the end room with my headphones on. I get to the end of the CD and I hear this car alarm going off and thinking 'For fuck's sake, shut up!' I listen to the next CD and I could still hear it but I just carried on. It's time to head home to bed and as I approach the reception the noise is getting louder. It was the building alarm, somebody must have armed it and not realised I was the last person in the building!"

Barry was one of the main protagonists when it came to late night working but for him it was all worth it. "My absolute favourite moment was when we were crunching on *Zone Warrior*, he continues "It was 2.30am in the office and I'd just finished writing the high score table music, a fairly mellow piece with these nice choir pads and a break beat. I had the music cranked and was totally in the 'zone'. The other guys in the office slowly trickled in and were just hanging out in my office chilling listening to it." A misty-eyed Barry then recalls, "They say when you create something, the reward comes when someone 'gets it'. Whether it's music, art, writing, etc, it's when someone else makes that emotional connection with what you created. Usually with game music, the only feedback you'd get was 'It sucks, do something else' or a magazine game review six months later that said 'Yeah, that's good'. But these guys who'd all been working on the game 16 hours a day for months on end all just filtered in slowly and just sat there digging it, they totally got it, it was fucking beautiful."

It wasn't all work and no play though, as going to the pub, getting drunk and having fun was also a big part of the Imagitec ethos. Barry gives us a little insight into the Imagitec days. "As someone who worked there once wrote – we worked hard, we played harder, and we celebrated *every* event. It was very much the frat house culture, combined with poverty, alcoholism, unheard-of passion, violence and of course, blood, sweat and tears. Having said that though, it was absolutely the best place in the world to be. We could do anything, we created a videogame industry."

"I was literally given a cassette tape of the music at 4pm on a Friday afternoon and told if I had it done by 5pm they could use it"

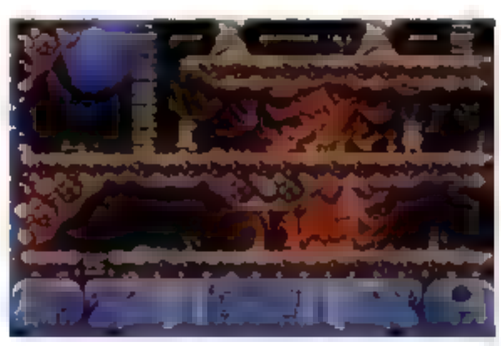
BARRY LEITCH

Julian Alden-Salter recalls some of the crazier moments at the company. "One time we tried to make explosives and flooded the kitchen with ammonia, and the 'flame throwers' were fashioned out of lighter fluid and coat hangers. Mental times." Kristi has her share of great memories too, revealing, "I remember one of the artists, Jolly, brought his replica pistol into work and started shooting rounds off upstairs. I thought I was going to get shot! We also covered a programmer's car with shaving foam just because he annoyed us all so much. He was so angry but it was all worth it. We had great times at Imagitec. If I could have those days again I would!"

One particularly memorable highlight for many of the staff was a trip to CES in Chicago in 1990. "We couldn't afford

BEING HUMAN

Imagitec's biggest hit was *The Humans*, a game that saw release on 13 different platforms from the Game Boy to the 3DO. Atari published versions for the Falcon and Jaguar, where the game was renamed *Evolution: Dino Dudes*, and a Lynx version called *Dinolympics*. GameTek published all of the other versions of the game and its two sequels. Obviously inspired by DMA Design's *Lemmings*, Psygnosis were actually getting ready to sue Imagitec when the game was first previewed in the magazine of the time. However, when it was finally released the game actually contained many original elements of its own. The idea of the game is to guide your prehistoric humans through a series of taxing levels, evolving them as you go. You need to help them invent fire and the wheel as well as teaching them to use their surroundings to their advantage. Your humans must avoid being eaten by hungry dinosaurs and learn to work as a team if you are going to reach your goal. *The Humans* was very well received by the press at the time, spawned two sequels and is set to be revived for mobile devices very soon.



TIMELINE

1985 – IMAGITEC DESIGN'S FIRST SET-UP AS A COMPANY TO PRODUCE GAMES FOR THE POPULAR 8-BIT COMPUTERS OF THE TIME

1987 – ITS FIRST GAME *BLOOD VALLEY* IS PUBLISHED BY GREMLIN GRAPHICS FOR THE 8 BIT HOME COMPUTERS IT RECEIVES QUITE MIXED REVIEWS

1989 – TECMO'S *GEMINI WING* BECOMES THE COMPANY'S FIRST EVER COIN-OP CONVERSION IT'S PUBLISHED BY VIRGIN GAMES ON ALL THE MAJOR HOME COMPUTERS.

1991 – IMAGITEC BEGIN ITS PROLIFIC PARTNERSHIP WITH ATARI BY PRODUCING A VERSION OF ITS ATARI ST AND AMIGA GAME *VIKING CHILD* FOR THE LYNX

1992 – *THE HUMANS* IS RELEASED ACROSS MULTIPLE FORMATS AND BECOMES ITS BIGGEST HIT. IT WAS LATER RENAMED *DINO DUDES* BY ATARI

1993 – THE ATARI JAGUAR'S RELEASED WITH TWO GAMES BY IMAGITEC DESIGN IN ITS LAUNCH LINE-UP *DINO DUDES* AND A CONVERSION OF THE SMASH HIT COIN-OP *RAIDEN*

1994 – JEFF MINTER'S *TEMPEST 2000* IS RELEASED ON THE JAGUAR TO CRITICAL ACCLAIM WITH MUSIC BY IMAGITEC DESIGN. IMAGITEC WOULD LATER CONVERT THE GAME TO THE PC ITSELF.

1995 – IT RELEASES ITS ONE AND ONLY SOUNDTRACK CD THROUGH ATARI THE MUSIC FROM *TEMPEST 2000*. A SIMILAR CD CONTAINING THE *DEFENDER 2000* SOUNDTRACK WAS ALSO PLANNED AND COMPLETED BUT NEVER RELEASED

1997 – IMAGITEC DESIGN'S BOUGHT OUT BY GREMLIN INTERACTIVE ALONG WITH DMA DESIGN AS A RESULT OF THE COMPANY'S STOCK MARKET FLOTATION

SIX OF THE BEST

The Humans (PC) [1992]
When *Lemmings* first came out, many people tried to clone the formula and without a doubt this game was the most successful result. A strategy puzzle game where you help prehistoric man discover fire, invent the wheel and avoid dinosaurs!

Xenophobe (Spectrum) [1989]
Imagitec handled the home computer ports of this popular Bally/Midway arcade game that was very reminiscent of the Aliens films. The arcade game had three-player split screen, and the home versions had two-player but every bit as good.

Viking Child (Amiga) [1990]
A blatant but excellent clone of Sega's popular *Wonder Boy In Monster Land* coin-op, this Nordic platformer features some beautiful graphics, great level design and art style, big feisty bosses and inventive power-ups

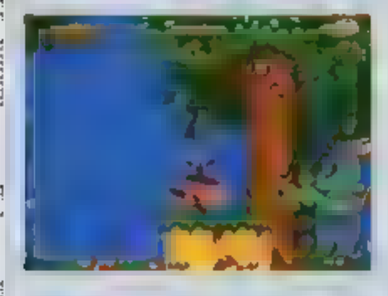
I-War (Jaguar) [1995]
Released exclusively for the Atari Jaguar in 1995, this 3D polygon shooter clearly took its inspiration from the cult Disney film *Tron*. You are trapped inside a super computer and must cure the viruses, fix the corrupted database and then escape

Raiden (Jaguar) [1994]
The original version of *Raiden* by Seibi Kaihatsu was a huge hit in the arcades. Imagitec Design handled the Lynx, Amiga, PC, Falcon and Jaguar ports of this game with the latter being regarded as one of the best versions of this popular title

Daemonsgate (PC) [1992]
A fantasy role-playing game released for the ST, Amiga and PC where you control a party of characters searching the land of Hestor for a wise wizard who possesses the knowledge to help stop an invading demon army

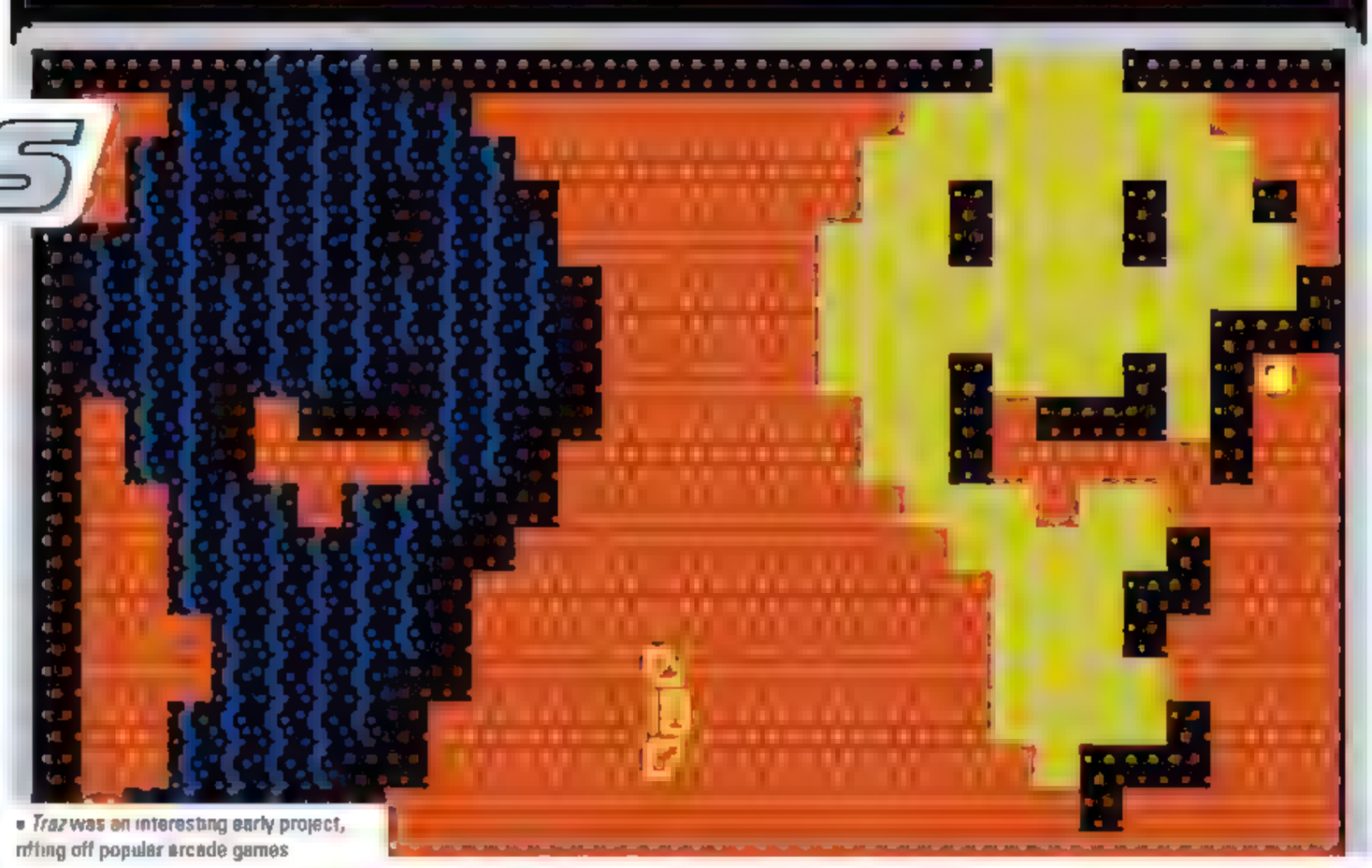
THREE TO AVOID

Bubsy In: Fractured Furry Tales (Atari Jaguar) (1994)
The *Bubsy* games have always got a lot of flak as ill-conceived *Sonic* clones with an annoying main character and terrible play mechanics. Of the 2D versions this Jaguar exclusive is by far the worst. Some of the most unfair deaths ever in a videogame



Snow White: Happily Ever After (SNES) (1994)
Back in the early Nineties everyone was releasing platformers to try and compete with the likes of *Sonic* and *Mario*. This game is about as generic a platformer as you will ever come across and is best left forgotten

Jeffrey Archer: Not a Penny More, Not a Penny Less (Spectrum, C64, Amstrad, Atari ST) (1987)
It's a text adventure that uses still graphics to portray key moments within the game. The fact that no further games based on the former MP's books followed should tell you all you need to know



• *Traz* was an interesting early project, riffing off popular arcade games

a taxi from the convention centre to the bar district so we decided to walk, begins Julian. "Not really knowing where we're going, five hours, some very dodgy neighbourhoods and some apparently hilarious blisters later we arrive at Rush Street and commence the drinking." He does maintain he learned some things from the trip, though. "There are some very weird people in America but they will give you a lift back to your hotel with their girlfriend sitting on your lap and then give you drugs. Nintendo may have made a 'Game Boy' but Atari made a 'game MAN', Meat Loaf is rather short, and if you're going to use someone else's birth certificate as ID for gods sake memorise their parents names and birthdays!"

One last story from Kristi, which really sums up the work/play balance at Imagitec. "We didn't really play games at work. There just wasn't time. When a new game came out, or we wanted to rip something off, we would all gather around a machine and dissect it, play it for research purposes, you understand! That did happen quite often. We did go for a trip once to Sega World to check out the latest games and technology. Martin Hooley was fond of taking us off for the day to the arcades in Blackpool and such like not only to play games, but to let off steam and intake lots of alcohol."

The Atari Age

"Gremlin were not the only company that Imagitec had a special relationship with, the other big one was Atari. During the Tramiel era, Imagitec worked closely with Atari to provide games for the 7800, Lynx, Falcon and Jaguar. Martin Hooley tells us a little more about the relationship. "In the late Eighties I was introduced to Jack Tramiel by Robert Stein of Andromeda Software," he begins. "The first title we did for Atari was to licence to them, and develop *Viking Child* on the Lynx."

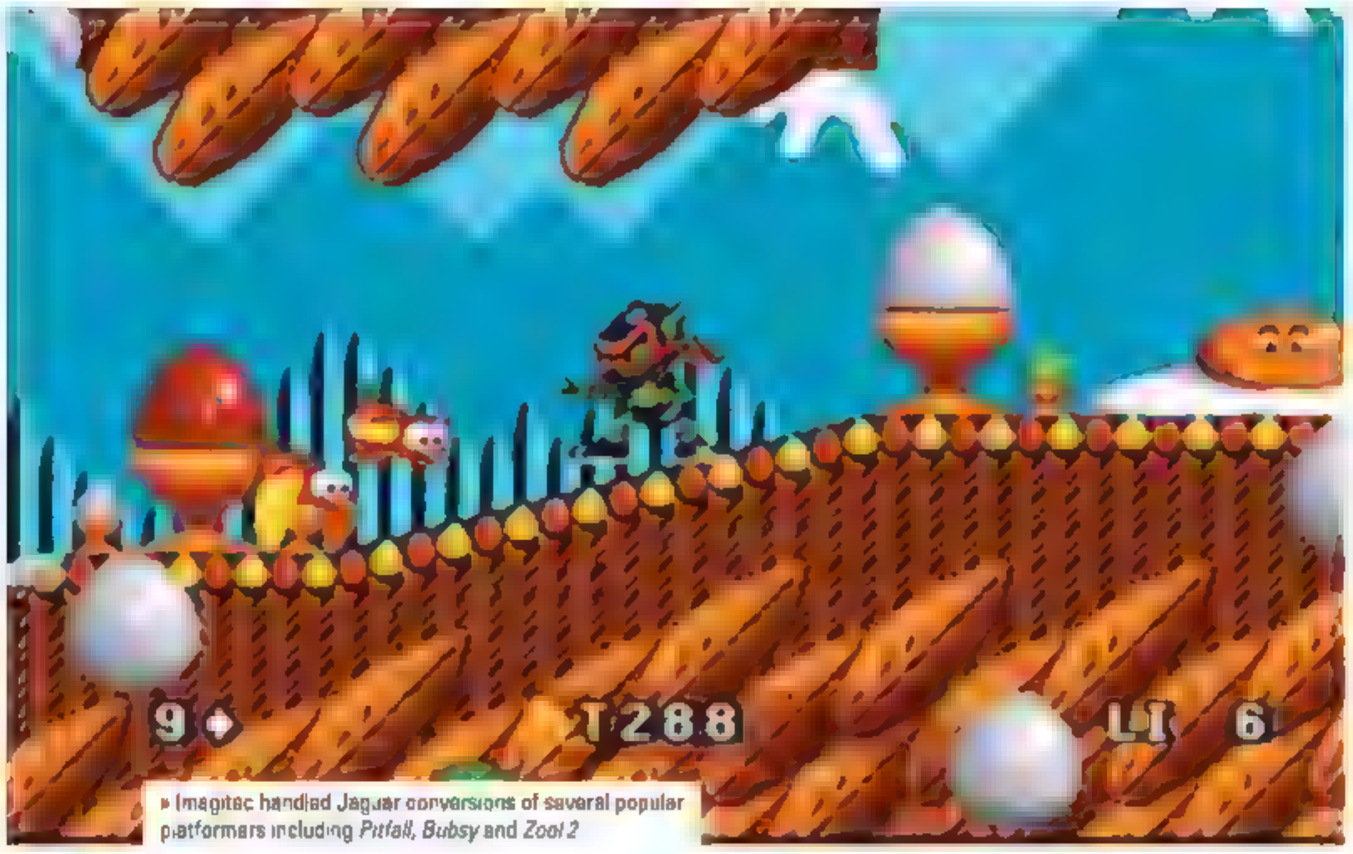
Imagitec went to program several more games for the Lynx and a conversion of the arcade game *Rampart* for the 7800 ProSystem. Following this it was briefly involved with Atari's replacement for the ST computer, the 32-bit Falcon, doing versions of *Raiden*, *Dino Dudes* and a revolutionary new game called *Space Junk*. This was set to be one of the first CD games for the Falcon and was a huge space adventure that mixed the classic point-and-click style with 3D arcade like sequences. I remember designing the characters and I still have some original sketchbook stuff. I also have one of the backgrounds somewhere in the attic, on cardboard because we were hi-tech!" reveals Sharon Dunford, who worked on *Space Junk* as one of its designers.

All of the characters in the game were members of the Imagitec staff wearing giant heads made out of latex. Many of the ex-Imagitec staff still own the heads and they take pride of place in their respective living rooms. Julian was one of the many people to work on the ambitious title telling us; "*Space Junk* was the final thing I worked on at Imagitec before I left. There was some 16-bit flat-shaded lit 3D polygon space flight stuff as well the adventure parts but the two were separate. I remember working a week of all-nighters and then flying to Dusseldorf to demo it for Atari. Fun fun fun."

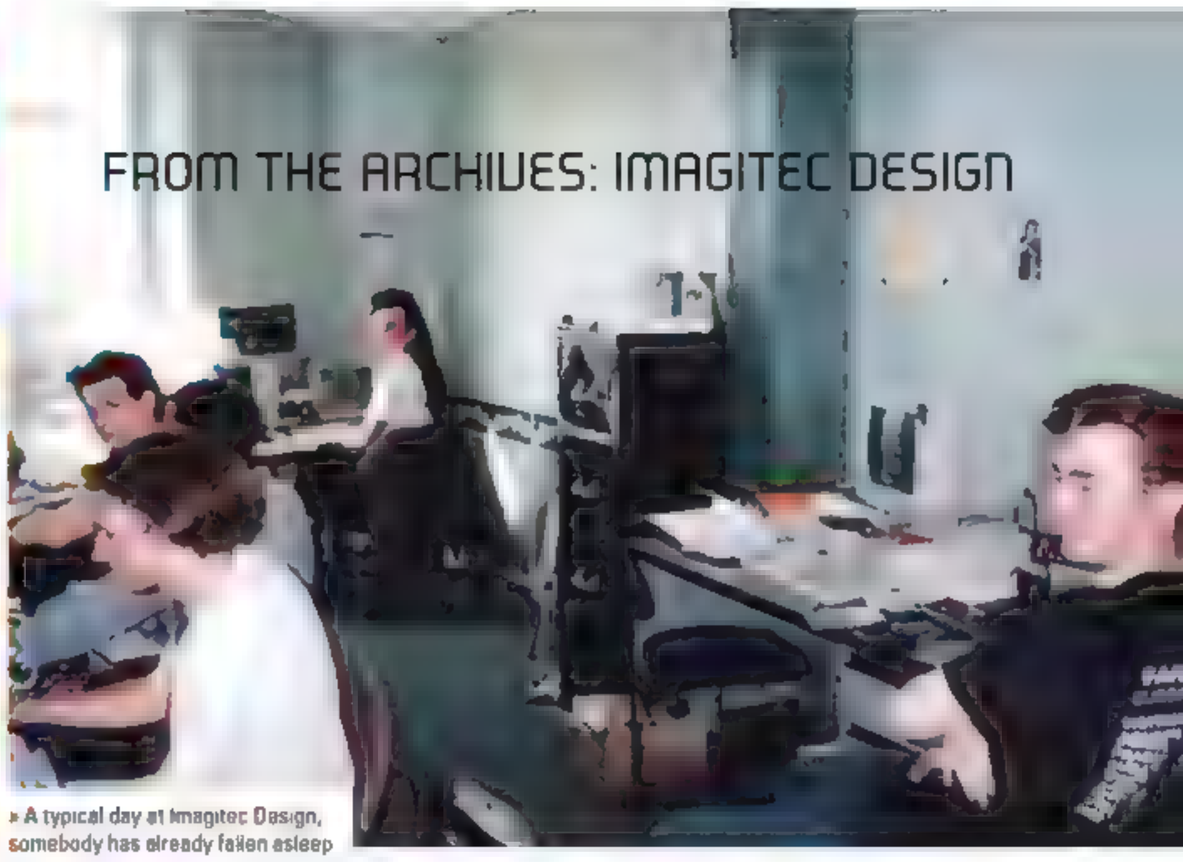
Programmer Andrew Seed was the next person to work on the project. "I started at Imagitec after Julian had left the company, so for a while myself and Nigel Conroy expanded the demo. I did a *Star Wars* style scroller; the FMV parts and Nigel did a point-and-click adventure section inside a ship. Back then there was no MPEG2 compression so the FMV was a bit larger than normal."

When Atari chose to cease Falcon support to concentrate on its new 64-bit Jaguar console, *Space Junk* was moved across to that platform. It was scheduled to be released as one of the first games for the systems CD add-on but was sadly never finished or released. This leads us on

"It was challenging, it was exciting, we felt and acted like rock stars, but lived like paupers!" KRISTINE SHERD



» Imagitec handled Jaguar conversions of several popular platformers including *Pitfall*, *Bubsy* and *Zool 2*



» A typical day at Imagitec Design, somebody has already fallen asleep

to the company's involvement with Atari's last ever machine, Atari's Jaguar

Imagitec were one of the very first developers signed up to produce games for the ill-fated conso e and coded two of the system's launch games – *Evolution: Dino Dudes* and *Raiden*. Programmer Martin Randall remembers the dev set-up very well "The development system for the Jaguar was an Atari TT with a large monochrome monitor and pizza-box style main unit with a separate keyboard, the monitor was huge for the time. I also remember Trevor Raynsford spend ng ages trying to work out how to get the DSP on the Jaguar to do something useful."

In fact Martin and Trevor were not the only ones to struggle with the system's custom chip set. "The custom chips of the Jaguar did not work correctly, they ran at half speed. They were designed to run code from anywhere but instead could only run code in its own memory, which meant less data being able to be stored locally, so a lot slower." Giving further insight he recalls "I finished *Dino Dudes* at Atari's HQ and got them to finish the Alpine boards (dev board with memory) as they had one button not wired up which was meant to trigger a breakpo nt. Which is quite useful to examine memory when something has gone wrong. Its initial development suite was command line based, even the debugger was backwards when you compare it to what was out then and on the TT. They eventually got a PC DOS windowed program running, which was fine"

The many stories of the Tramiel family are out there for all to read and Sam Tramiel is commonly b amed for the downfall of the Jaguar but Martin Hooley remembers things quite differently "The heads of development at Atari were John Skruch and Julie Long, they were bloody fantastic folk imagitec had a great re ationship with them As you know the effective boss of Atari was Sam, who was a really good bloke, the CTO was his brother Leonard – he was a different matter He would hear no wrong about its hardware, if you got into it about problems with the hardware, his standard answer was that it was your skill/aptitude at fault, not its hardware." Once the Jaguar was at its peak, Atari decided for the first time (under the Tramiels) to hire a team of

» This fully licenced racer proved a big hit for EA on the 16-bit home computers

in-house programmers and Martin Hooley was not a fan "The people they hired were pretty shit, they turned out to be real back-stabbing folks. They totally turned on the old guard of Skruch and Long. That was the beginning of the end, at this point we had already decided that we did not want to work with the new Atari folks."

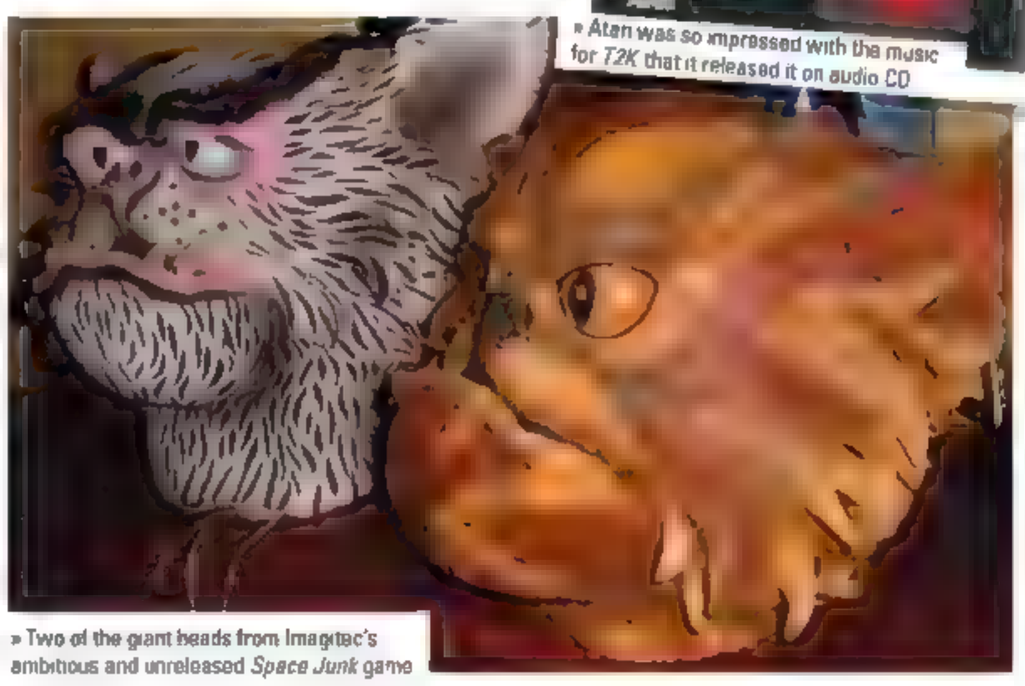
This led Martin to make a tough decision. "We called it a day on *Freelancer 2120* and *Space Junk*, as it was obvious that the Jaguar CD was going to flop its arse off and we had zero chance of recovering our investment. Before Atari built its own team in-house, working with the Tramiels, Skruch and Long was great. Afterwards, the people in charge were a bunch of tits." Despite the sour end to the relationship Martin Hooley looks back on the Atari relationship with pride and was particularly proud of its work on the soundtrack for Jeff Minter's classic *Tempest 2000*. "We did quite a bit of freelance music for Atari and its third-party developers. The most notable moment was the audio for Minter's *Tempest 2000*, which Atari actually released as an audio CD too." Imagitec also produced the soundtrack for Minter's next game *Defender 2000*, which was also turned into an audio CD but never released, and wrote the sound engine that was used in most of Atari's self-published games.

Helped by the Atari relationship, the company went from strength to strength and in 1995 it turned over in excess of $5 million. This made many larger companies stand up and take notice, most importantly its old friends Gremlin After a successful stock market flotation, Gremlin Interactive (as it was then known) were looking to expand and saw the Dewsbury based development house as a perfect fit. It purchased Imagitec, along with *Lemmings* creators DMA Design, and this saw the end of the company as a separate entity Gremlin would themselves be taken over several years later and become part of French company Infogrames, now known as Atari Interactive, bringing the Atari connection back full circle.

GTA: DEWSBURY

When the original 2D *Grand Theft Auto* game was released in 1997 a port to Sony's PlayStation console quickly followed. The team assigned to the conversion by DMA Design, who had originally created the game, were running into trouble and needed help Gremlin had just bought DMA after their successful stock flotation along with Imagitec Design too Due to this arrangement the game was handed over to conversion specialists Imagitec for completion They completed it and the game was released on time to huge critical acclaim We all know where the series went from there

» Atari was so impressed with the music for *T2K* that it released it on audio CD



» Two of the giant heads from Imagitec's ambitious and unreleased *Space Junk* game

NORTH & SOUTH

IN THE KNOW

- **PUBLISHER:** INFOGRAMES
- **DEVELOPER:** INFOGRAM
- **PLATFORMS:** AMIGA, ATARI ST, PC, SPECTRUM, AMSTRAD CPC, C64
- **GENRE:** ACTION STRATEGY

A Belgian comic based on the American Civil War, a fledgling French developer and one of the best-loved games of the 16-bit era. Mike Bevan talks to creator Stéphane Baudet about the game that put Infogrames on the map

When we think of comic book characters in videogames, it's easy for thoughts to wander across the Atlantic, from Mickey Mouse in *Castle Of Illusion* to *Marvel Vs. Capcom* and the various gaming outings of Spider-man, X-Men and The Hulk. It's worth remembering, though, that Europe has a long tradition of comic creations that have made the transition from brush-stroke to pixels. For example, pint-size Gaul Asterix, quiffed adventurer Tintin, and our very own Dan Dare all made it into their own videogames in the Eighties and Nineties. Back in the day, those who played *North & South* might not have realised that its roots also lay in a popular European comic series.

North & South pulls off the impressive feat of taking a turbulent period of American history, the Civil War of 1861-65, and turning it into an entertaining action-strategy game with a healthy dose of unmistakably Gallic humour. Played out across a stylised map of the Eastern and Midwestern (then not so) United States, the game alternates between board-game style strategy, miniature real-time combat and arcade-style platform sections. It's a winning hybrid of styles, particularly in two-player mode, the battlefield sections proving a real highlight as players frantically try to demolish their opponent with tiny cannons, cavalry and troops.

The lead programmer of *North & South* was Stéphane Baudet, who joined Lyon-based developer Infogrames in 1988. "My first job as programmer was to develop a game called *Hostages* on the Amiga," Stéphane recalls. "After that, I proposed to take over a game that was abandoned due to the departure of team members. The game was based on *Les Tuniques Bleus*, a Franco-Belgian comic book. *Les Tuniques Bleus* was not very popular outside of France, Belgium and Switzerland. I don't actually know if the comic was distributed in other countries such as UK and Germany. Personally, I read the comic when I was a kid and I was already familiar with the universe."

"Infogrames' management team (Bruno Bonnell and Thomas Schmider) were fans of European

LES TUNIQUES BLEUES

SOUTH

comics, and the company had made cross-media between comics and videogames a significant element of the company strategy," reveals Stephane. "Before *North & South* Infogrames had already adapted a couple of comic universes as games, even if they were pretty unknown in many European countries. The first Infogrames game published [*Passengers On The Wind*] was based on the comic *Les Passagers Du Vent*. At the time, the company didn't have the money to buy more famous comics licenses such as *Astérix* or *Tintin*. Although *Les Tuniques Bleus* was well-known in French-speaking territories, it was especially for the humour and richness of its universe that it was chosen."

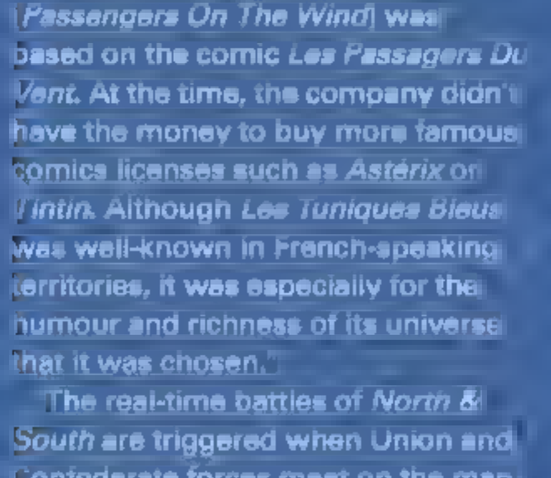
The real-time battles of *North & South* are triggered when Union and Confederate forces meet on the map, instigating a switch to a bird's eye view of the action. These evolved early in the game's development, influenced by Stéphane's interest in traditional table-top war gaming and the skirmishes pictured in the comic series. "Ever since I was a kid, I was a fan of the little plastic toy soldiers, and I wanted to create a game based on small-sized soldiers fighting each other in real time," he says. "The RTS genre did not exist at that time, so there were barely any existing reference games. The American Civil War context of *Les Tuniques Bleus* was the perfect setting to try out this idea."

Although *North & South* shares certain similarities with previous videogames like *Defender Of The Crown* and *Archon*, board games rather than contemporary videogames were the main impetus behind the strategy portion of the game. "I was particularly interested by the genre, regularly playing war games at the time," Stéphane tells us. "I played *Civilization* and *Defender Of The Crown*, but the real inspiration was *Risk*. *Civilization* was a far more complex game, and the strategy level of *Defender Of The Crown* was a bit limited. The *Risk*/action game hybrid actually came from technical limitations. Initially, what I wanted to do was to have just one view to see all the troops and control them from the top, like a modern RTS game. But technically, that was not possible so I went for the hybrid form, which probably made the game a success."

Indeed, the slightly hotchpotch nature of *North & South* certainly adds to its charm. One minute you're musing over the tactical map like an armchair General Grant, wondering which part of the Confederacy to waltz your armies into, the next you're robbing a train or capturing a fort, slugging guards skywards, *Asterix*-style. The task of creating the various sub-sections of the game was shared between Stéphane and several other programmers on the Infogrames team. "I worked mainly on the battlefield gameplay," says Stéphane. "The strategic section

North & South's original European boxart features an attractive montage of Willy Lumley's comic-book artwork

"Odd and (in the two player mode) simply unmissable" AMIGA POWER



The Making Of...
NORTH & SOUTH

(US map) was developed by a programmer called Vincent Belliard, who later developed the engine of one of the first French internet portals called Infonie."

"Personally, I was not such an excellent programmer as Vincent, because I was only interested in the result, not in how the code was built. As a consequence, I had things running quite quickly, but I was spending an awful lot of time trying to debug it... The side-scrolling mini-games were the only piece I kept from the original game prototype when I took over the project. Initially, I was not a big fan of those gameplay sections – I found them a bit lame and repetitive – but since significant work was already done on those, we all decided to keep them to break the routine of the battlefield gameplay."

Those who have played against in computer in *North & South* will know it plays a mean game, particularly at the more advanced levels. Another fun aspect is the fact your computer can be set up to quite happily play its own fictionalised Civil War against itself. "I have always been a big fan of multiplayer games, and *North & South* was created as a two-player game," says Stéphane. "The AI was developed to replace the second player. We actually even had a mode in which the two players were replaced by AI bots. This mode was used to debug the game, and tune the balancing of battlefield units and the strategic level. We were just leaving the Amiga running the game all night and sometimes we were coming back in the morning to discover that a cavalry unit was left invincible and stuck in a bush!"

Despite not featuring much in the way of a narrative, the visual style of *North & South* is admirably close to that of the comic books, down to the tongue-in-cheek 'cover' on the title screen. "I remember that we met with Willy Lambil (the artist of *Les Tuniques Blues*) in our office," says Stéphane. "We showed him the progress of the game and what the graphics looked like on Atari ST or Amiga. He was amazed to see his characters in movement because Chesterfield and Blutch (the two main heroes) were animated for the first time. Didier Chamfray, our Art director, did a really good job of conveying the art style of Willy Lambil on the Atari and Amiga versions, though, for the 8-bit versions, the colour and sprite limitations imposed a lot of interpretation on the original style."

"With the character design, the humour was the second key element of the comic universe. The sense of humour directly derivates from the comic, and because we all liked that sort of humour, it was kind of natural and easy for us to convey it in the game. Didier Chamfray was the 'funny man' of the team, and he brought most of the humorous touches to the game (images, animations, silly sound effects...). The idea of poking the photographer actually came from Frederic Raynal, who later created *Alone In The Dark*. He wasn't part of the team, but he was a big supporter of the game, and was coming to us regularly with all sorts of crazy ideas!"

The whimsical spirit of the comics permeates throughout the game via an assortment of funny moments – the sound of cavalry falling into a river with a whinny and a splash, injuns chucking hatchets across the map, and humorous versions of 'Yankee Doodle' and other traditional American tunes. "The final mix of the game (humour, strategy and action) wasn't calculated, and was just a combination of the heritage of the early stage of the project and the mix of personalities involved. This mix was certainly the key factor to the success of the game, along with its accessibility and endless replayability. We enjoyed playing the game frequently ourselves, and we were constantly improving many details of the game as we did so."

"The success really started when North & South was released in the UK and Germany"

DEVELOPER HIGHLIGHTS

DRAKKHEN
SYSTEM: AMIGA, ATARI ST
YEAR: 1990

THE SMURFS
SYSTEM: PSONE
YEAR: 1999

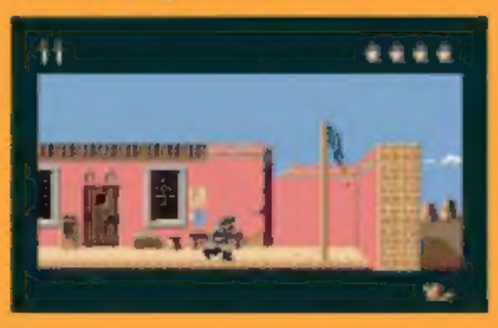
ASTERIX
SYSTEM: SNES
YEAR: 1993

V-RALLY
SYSTEM: PSONE
YEAR: 1997

CONVERSION CAPERS

We compare the various computer and console versions with which to lead the Union to victory...

AMIGA/ATARI ST
The Amiga and Atari versions are the ones we'd recommend to potential *North & South* generals. While practically identical, the ST actually has even better digitised sound effects and jingles than the already excellent Amiga version.



COMMODORE 64
Probe Software's conversion tries its hardest, but disappointing visuals and awkward loading times (for each section the game) put the dampeners on this port. The disk version is just about playable, but the cassette one is a bit of a nightmare.

ZX SPECTRUM
On the Spectrum 128 this is by far the best of the 8-bit computer versions, with admirable graphics, a very playable battlefield section and arcade sub-games. The 48K version suffers from the same multi-load problems as the C64 port.

The fact that *North & South* was a relatively complex game for its time didn't stop it being ported from the more powerful 16-bit platforms to the lowly 8-bit computers, as well as a receiving a rather good version on the NES console. "The original versions are the Atari ST and the Amiga," says Stéphane. "The other versions were just created on the success of the Atari and Amiga versions and developed in parallel by the same team. The Commodore 64 version was developed by Probe Software, based in Croydon. The Spectrum version was made in Spain by a developer called Bit Managers."

"The ZX Spectrum and Amstrad CPC Cassette versions were probably the most awkward," confides Stéphane. "Every gameplay section (the battlefield, the train, the fort) was recorded on a side of a cassette. I remember that the game had something like three double-sided cassettes in the box and you constantly had to rewind and switch cassettes while playing... But even with this issue, the game received 96 per cent in *Crash* magazine!"

North & South turned out to be an important title for the struggling Infogrames, despite a slow start in its homeland. "The early reception was mild," admits Stéphane. "The game came out first in France and the reviews were average. The scores were maybe affected by Infogrames' poor image in France at that time. We were mostly known for selling cheap or unpolished games in pretty boxes. The popularity of the game grew progressively, and the success really started when the game was released in the UK and Germany. Reviews in most European countries were in the region of 85-95 per cent, which was really good compared to the French reviews."

The game's eventual success allowed Infogrames to persue the rights to other comic book series it had interests in, including *Asterix*, *Tintin* and even *The Smurfs*, establishing itself as the premiere developer for European comic book licensed videogames. Stéphane worked on *The Smurfs* and two *Asterix* videogames himself, before leaving and founding Eden Games, where he produced the successful *V-Rally* series for Infogrames. Eden most recently brought us both instalments of the *Test Drive Unlimited* series, and, in an extraordinary reversal of fortune, Infogrames has grown from early projects like *North & South* to purchasing the hallowed Atari label.

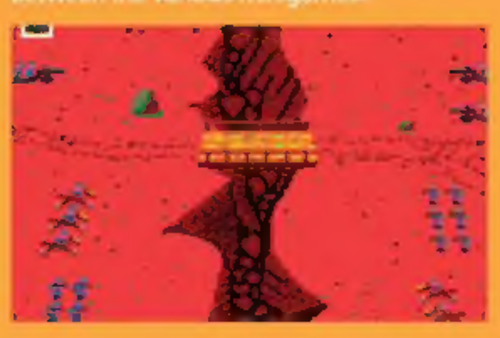
Stéphane is now Creative director at Ubisoft Annecy, specialising in multiplayer games. His most recent project was directing the critically acclaimed multiplayer mode in *Assassin's Creed: Brotherhood*. "It was really nice two-year collaboration with the Ubisoft's Montreal Studio," he comments. "The reception seems to be good for the moment, and we will now keep improving the game and provide additional content until the next *Assassin's Creed* iteration."

For us at **Retro Gamer**, it's gratifying to know that the man behind one of the most innovative multiplayer experiences of recent years cut his teeth with the whimsically endearing two-player battles of an Amiga classic "It was really my first game, and it remains one of my favourite games I've worked on in my long career," he says. "Today I regularly teach in school and many students make references to it, such as: 'Wahoo... you are the guy behind *North & South*!' So, if I can be remembered for just a couple of games, *North & South* would be one of them."

CONVERSION CAPERS CONTINUED

AMSTRAD CPC

A very respectable port, despite a rather garish look about it in some parts of the game (no wonder the South lost if their forts were bright pink). It's fast and playable, and there are no loading times between the various minigames.



PC DOS

Being released back in the days of primitive sound and video cards means this conversion is a bit of an assault on the ears, and nowhere near as pretty as the Amiga and ST versions, but it's otherwise a surprisingly close port.

NES

We're big fans of the NES version; despite the graphics being simplified, they have a cute 'Nintendo-ified' look to them that's quite endearing, and it plays wonderfully on the NES pad – with the fort and train sections being particularly good fun.

7930

Oids

THE BEST REASON TO BE FRIENDS WITH A GUY CALLED SHERVIN

RETROREVIVAL

- FTL GAMES
- ATARI ST
- 1987

I was jealous of my school friend Shervin. He had stories of travelling to America. He had loads of role-playing board games, including my all-time favourite *Talisman* (which was converted into a Spectrum game). He had a Nintendo NES with the Zapper and *Duck Hunt*. He was also one of the first in my school year to own an Atari ST. I may have been a Commodore fan, even defending the Amiga in playground 'discussions', but Shervin's ST was my first taste of 16-bit gaming. We spent countless hours on *Dungeon Master* and *Speedball*, but it was *Oids* that always stuck in my memory for being exclusive to the ST.

Oids mixed elements of *Thrust* and *Choplifter* and added a level editor. The player would select a galaxy, the mothership would warp to the planet and the player's shuttle would detach from the mothership. Flying the shuttle through the oddly shaped caverns, prisoners were released from captivity by shooting the bases. The shuttle had to land on flat ground nearby to collect the prisoners, returning to the mothership to progress to the next level. There were many obstacles and enemies out to stop you – from the magnets that repelled or attracted your ship to the vicious clouds of homing missiles that appeared on later levels. And of course gravity was a constant opponent, tempting the rash player into flying too close to the cavern walls. Run out of lives and the game would offer the chance to practise the level, a nice touch.

The kindest thing to say about the graphics and sound is that they do the job – the little prisoners running around have a character of their own, even when burning to the ground thanks to a misplaced bullet or explosion. It is not the flashiest 16-bit game, even with the little 'warping to planet' interlude. But it's the addictive gameplay that really draws the player in, and with the high score for each galaxy saved to disk there was a long-term challenge to beat your friends... ★